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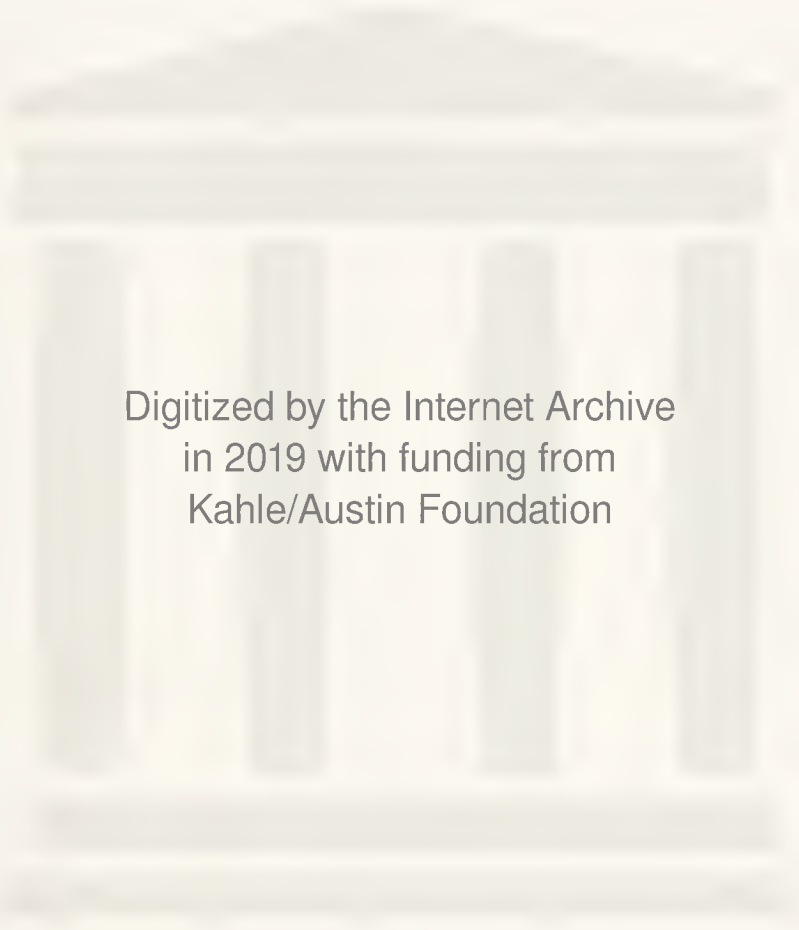

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Indiana University

Series Minor, 208

General and Rational Grammar:

THE PORT-ROYAL GRAMMAR

by

ANTOINE ARNAULD AND CLAUDE LANCELOT

edited and translated with an introduction and notes by
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Critical Essay by Norman KRETZMANN (Cornell University)

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To Yetta Rollin
and Mary Ann Rieux

279576

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PREFACE

The Port-Royal Grammar had a long, useful life, and would slowly have fossilized into an item in the archeology of linguistic history had it not been generously summoned to the life of controversy as a declared ancestor of transformational grammar by Noam Chomsky. Rethought today in terms its clever authors scarcely could have forecast, scholars must now determine whether it indeed bears the germs of this remarkable theory, and if it is truly as innovative as its resurrectors claim it to have been. Were it not for its abrupt, wider relevance, this crystalline translation of it would not have been necessary, since its audience today would then have been specialized students of grammatical history, presumably equipped with the literary means of reading it in its not outstandingly difficult original French. Instead, accessibility to a larger readership, and hence modern translation, have a certain urgency: in his 1967 Berkeley lectures on language and mind, Chomsky reports having been unable "to locate a single copy, in the United States, of the only critical edition of the *Port-Royal Grammar* produced over a century ago; and although the French original is now once again available, the one English translation of this important work is apparently to be found only in the British Museum."[1] We are all thus in the debt of Professors Rieux and Rollin, as much for the learned apparatus of their edition as for the text itself, which must be reckoned definitive.

[1] Editors' note: The 1754 English translation of the *Grammar* referred to by Chomsky has recently been reprinted in facsimile by Scolar Press. See selected bibliography.

At least a preliminary verification of the claims made in its behalf may now be made, as well as of the invidious contrast so tirelessly drawn by Chomsky between the 'cartesian' theories of language, which this book allegedly exemplifies, and the more widely familiar reflections on language to be found in the prominent traditions of philosophical empiricism, and especially in Locke.

Locke, no less than the Port-Royal grammarians, construes language as an external index of certain processes of thought, but for Locke the central focus is the word, taken as standing for an interior entity Locke designated as an *idea*. Ideation — or conception — is only one type of psychological process identified in the Port-Royal Grammar: the other two are judgment and reason: and as conception has its external linguistic counterpart in the *term*, judgment is represented by the proposition and reason by the argument. It is proposition, or phrase, of course, which plays the central role in the present work, and it is for its emphasis upon the phrase that Chomsky particularly lauds it, as well as for its acknowledgement that the combination of terms into propositions presupposes a mental activity in relating concepts to one another. Locke, of course, was deeply interested in mental activity, but chiefly within the confining horizons of conceptualization: compounding simple ideas into increasingly complex ones, and framing general concepts on the basis of particular experiences. The mental operations enlisted in explanation of these achievements were imagination and abstraction respectively; and while Locke *may* be read in the light of a para-chomskyan model — concerned to account for the virtual infinity of ideas the understanding compasses, when only a finite and indeed a degenerate input can be assumed — it must be granted that *judgment*, in Locke, is largely confined to such questions as whether our concepts have instances or causes in the correspondent world and hence, like Descartes, Locke is concerned with philosophical vexations in the theory of perception. It seems fairly plain that the sentence escaped his attention as raising special problems, though connecting ideas up to form compound ideas, and connecting ideas up to form judgments, quite obviously call for very different analyses. "The prop-

osition is essentially complex", Wittgenstein wrote at *Tractatus* 4.032: but a profound difference separates this order of complexity from the complexity of compound ideas. For in the end a compound idea is a mere conjunction of its component conceptual parts, themselves ultimately uncompounded, while a judgment has to be something more than conjoined concepts, as a sentence is more than a conjunction of terms: for how otherwise would a sentence differ from a list? This is brought out in the *Port-Royal Grammar* by the difference insisted upon between nouns and verbs, the authors explicitly apologizing in the final *avertissement* for their neglect of compound terms — a useful but evidently different subject from any they treat of in the book, and belonging less to grammar than to what we might term analytical lexicography.

However neglected in favor of terms in the tradition, the sentence has become a philosophical crux for contemporary or near-contemporary theorists, at least since its promotion by Frege, according to Quine, as the unit of meaning. I suppose it is the logically simple phrase Quine had in mind, rather than sentences as such, for certain sentences which appear simple from the viewpoint of surface grammar are more *texts* than phrases, and draw their meaning from the sentential units which compose them. It is a clear insight of the *Port-Royal Grammar*, crudely anticipatory of the Theory of Descriptions, that certain sentences, simple enough at the surface, have to be resolved into sentences of unitary significance if perturbations in semantical assessment are to be aborted. The now celebrated paradigm of Port-Royal, "Invisible God created the visible world", may be supposed to derive its meaning from the sentential parts it may be resolved into, somewhat parallel to the manner in which its truth-value is functionally derivative from theirs. But the sententially least units into which we resolve it (or any molecular phrase) cannot then derive their meaning from any constituent lesser sentential parts: but it remains perplexing that these should be primitive units of meaning in a way in which it would be plausible to think of certain words or roots as semantically primitive units. And it seems likely that the meanings of logically simple sentences are not primitive,

but are somehow functions of the meanings of their *lexical* components, though once more it is implausible that the rules of composition which take us from words to sentences are not essentially different from those which take us from words to words of a higher complexity, the former being rules of grammar properly speaking, and the latter rules of analytical lexicography.

If each logically primitive sentence were indeed understood in a manner in which we may suppose primitive terms were understood, there would be a serious question as to how linguistic competence could be arrived at, unless these sentences were finite in number and par-axiomatic for the language as a whole: though even on this somewhat unrealistic assumption it would seem more likely that the internal structure of these sentences would play a significant role for which no parallel is available for understanding primitive terms, which presumably have no structure. Indeed, it is this disregard of internal structure which has characterized most philosophical theories of sentential meaning in recent times. Thus treating sentences as given their meaning through their use implies a picture of language as a sort of phrasebook, where "I am sorry" is the phrase we use to solicit exculpation, and "*Où est la gare*" the one we use for soliciting directions to the train in the respective forms of life or the language games in which apologies and direction-seeking are moves. Or again, the thesis that sentences derive their meaning through verification processes (lacking which they are meaningless), though this implies a thesis that the sentence is the unit of meaning (since *words* cannot be verified), implies a theory of language acquisition at odds with the central fact, which it leaves mysterious and inexplicable, that we may comprehend a virtual infinitude of previously unlearned sentences merely in being masters of the language and without special data, of the sort which the concepts of use or evidence exemplify. So it cannot be thought that the recent preoccupations with sentences constitutes serious progress in the appreciation of philosophical grammar, whatever other gains there may be.

Philosophers committed to either of these latter two views, it is fair to say, have been impressively more concerned with the

meanings of psychological sentences than with what must be psychologically presupposed if linguistic acquisition is to be possible. In seeking to elicit the meaning of sentential units by asking under what conditions we would use them, or what evidence would be relevant to their verification, each sentence is, in effect, treated as semantically primitive, which would, to paraphrase an argument of Davidson, render language unlearnable if the mark of linguistic competence is the ability to understand all and any sentence of the language on the basis of a severely limited input. This, of course, is also a defect in behavioristic accounts of language acquisition, as Chomsky has famously demonstrated, which have the effect of blotting out the crucial distinction between mastering a language and mastering a vocabulary or a *phrasikon*. It is too early, I think, to write *finis* to linguistic behaviorism as such, but any future form of it will have to show that it is adequate to the acquisition of skills all previous attempts have grossly mischaracterized. Since he praises it for a psychology which, if inadequate, was at least along the right lines, it might be well to examine the *Port-Royal Grammar* briefly with this in mind.

My view is that, however interesting the Port-Royal psychology may be, it cannot be remotely of the sort an adequate psycholinguistic theory requires, and it might not be taken ill in a preface to a work I admire to exacerbate the polemic it has generated.

The most striking conjecture the book makes is its thesis, in Chapter XIII, that verbs, in at least the most central and critical cases, are to be understood as *vox significans affirmationem* — as affirmations or assertions — almost as though this common grammatical category already provided what Frege supposed had specially to be marked through the artifice of the *Urteilsstreich*, language not furnishing, in his view, a natural equivalent of the latter. The verb, accordingly, is dynamic and performative, and its role in speech is curiously analogous to that of the *cogito* in thought. The *cogito*, in Descartes no less than in Kant, is not part of the content of any judgment, being that which transforms that content *into* a judgment whose content it does not penetrate. To be sure, there may be a judgment whose content *is* "I think".

But even here, there is an implicit and accompanying *cogito* which makes the latter a judgment, whose form might as a whole be (*Cogito*) *cogito*, the token in parenthesis serving as a performative operator over the free-standing token. Exactly this is stressed in the remarkable discussion of *affirmo* in Chapter XIII: "This verb signifies two affirmations; of which one concerns the person who is speaking and the other concerns the person of whom one speaks, whether the latter is the speaker or another person." Every verb we employ, accordingly refers to ourselves as speakers, affirming being something we *do*. This has, as the oxonian italic suggests, a decidedly contemporary ring. Asserting or affirming may be classed as speech acts, as much so as promising may, to take that over-canvassed paradigm. Now it has been recognized since Hume that "I promise" does not, or need not, describe some interior movement of the soul in which promising essentially consists. By parity, *affirmo* does not, or need not, refer to some inner movement of the soul in which affirming essentially consists or which *is* the affirmation. This does not mean that there cannot be interior episodes of judging, any more than it follows in the parallel case of promising that one could not promise in the logical silence of the mind. Affirming involves (in the simplest case) a relation between a speaker and (at least) two terms. The terms may be spoken, written, or merely thought, depending upon whether one affirms on paper, in the air, or silently and in thought. Judgment may accordingly be an internal or an external performance, but it is sheer superstition to suppose that whenever it is external, in a voiced or inscribed proposition, there is a co-occurent, co-structural interior duplication which somehow *explains* it. Thus one gets the sense that for the *Port-Royal Grammar*, language is more or less understood as communication, the outward expressions of inner processes which parallel rather than account for them. Hence the psychology is that of thought as inner speech, for which some other mental processes, perhaps of the sort Chomsky has postulated in his work on deep grammar, must be invoked to account for, as much as, and for just the same reasons as, it must be invoked to account for *outer* speech. The only differences arise at the level

of phonetics. "Audible language expresses inaudible thought", to play upon and invert its famous example, is pretty much the teaching on thought and language one may find in the *Port-Royal Grammar*. But it equally condenses Locke's otherwise inferior reflections on the same subject.

The treatment of verbs deserves a deeper analysis than I can offer here. And it is but one of a fascinating number of original ideas to be found in this surprisingly stimulating volume. It is a safe prediction that citations from the *Port-Royal Grammar*, now that Rollin and Rieux have made it so splendidly available, will increase exponentially, and we will all profit from its second coming and from the enrichment it contributes to our discussion of matters it pioneered.

Arthur C. Danto

TRANSLATORS' INTRODUCTION

I

The recent resurgence of interest in the Port-Royal *Grammar* in Anglo-American intellectual circles is manifestly due to the prominence afforded this work in the writings of Noam Chomsky. Explicit references to this book appear in most of Chomsky's major works,[1] and these references are invariably highly laudatory. In *Cartesian Linguistics*, Chomsky makes much of the degree to which his own work in transformational grammar is foreshadowed by Port-Royal as well as of the fact that the rationalistic Cartesian theory of language is in essence a series of developments of ideas which are already implicitly contained in the work of Port-Royal. Further, the longest section in *Cartesian Linguistics* dealing with any single topic is directly devoted to a discussion of the Port-Royal theory of language. In *Language and Mind*, Chomsky describes the *Grammar* as "the work that initiated the tradition of philosophical grammar" (p. 14), and deplores its neglect by contemporary scholarship: "It is a pity," he affirms, "that this work should have been so totally disregarded, since what little is known about it is intriguing and quite illuminating" (p. 14).

Recently, Chomsky's picture of the Port-Royal *Grammar* has been challenged by a number of scholars, on a variety of grounds, both scholarly and conceptual. It has been argued, for example,

[1] See for example, *Current Issues in Linguistic Theory* (The Hague: Mouton and Company, 1964); *Aspects of the Theory of Syntax* (Cambridge, Massachusetts: M.I.T. Press, 1965); *Cartesian Linguistics* (New York: Harper and Row, 1966); *Language and Mind* (New York: Harcourt, Brace, and World, 1968).

that the *Grammar* is not strikingly proto-transformationalist,[2] that what is transformationalist in the *Grammar* is derivative and unoriginal,[3] and that the *Grammar* is not particularly Cartesian.[4] (Indeed, according to one recent writer, it is actually anti-Cartesian.)[5] On the other hand, one finds little agreement among the various writers on the basic issues, and in any case, it is quite plausible that Chomsky welcomes these criticisms, for they are in effect providing a new and, to his mind, much needed forum for discussing the rationalistic theory of language and mind.

Chomsky's fundamental concern, beginning with his famous review of Skinner's *Verbal Behavior*[6] and extending to the entire argument of *Language and Mind* as well as to his recent attack on Skinner, "The Case Against B. F. Skinner",[7] was with challenging, in Kuhn's terminology,[8] the accepted paradigm in contemporary psychology and linguistics. As Kuhn has shown, in his now classic analysis, scientific (or conceptual) revolutions are not achieved merely or even primarily by the discovery of new facts or the devising of new theories. Sociological, psychological, and generally non-cognitive factors play a major role in the

[2] See Norman Kretzmann, "Transformationalism and the Port-Royal *Grammar*", this volume, page 176; Robin Lakoff, review of Herbert Brekle's critical edition of the *Grammaire générale et raisonnée*, *Language* 45 (1969), 343-364; Karl E. Zimmer, review of *Cartesian Linguistics* by Noam Chomsky, *International Journal of American Linguistics* 33-34 (1967-1968), 290-303.

[3] See R. Lakoff, review of H. Brekle's critical edition of the *Grammaire générale et raisonnée*, *Language* 45 (1969), 343-364; Vivian Salmon, review of *Cartesian Linguistics* by Noam Chomsky, *Journal of Linguistics* 5-6 (1969-1970), 165-187.

[4] See Hans Aarsleff, "The History of Linguistics and Professor Chomsky", *Language* 46 (1970), 570-585; Lakoff, review; Salmon, review of *Cartesian Linguistics*, *Journal of Linguistics*, 5-6 (1969-1970), 165-187.

[5] See Jan Miel, "Pascal, Port-Royal, and Cartesian Linguistics", *Journal of the History of Ideas* 30 (1969), 261-271.

[6] Noam Chomsky, review of *Verbal Behavior* by B. F. Skinner, *Language* 35 (1959), 26-58. Reprinted in J. A. Fodor and J. J. Katz, *The Structure of Language* (Englewood Cliffs: Prentice-Hall, 1964), 546-578.

[7] Noam Chomsky, "The Case Against B. F. Skinner", *New York Review of Books* (December 30, 1971), 18-24.

[8] Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962).

phenomenon of paradigm shift. It is not implausible to suggest that Chomsky's concern with the Port-Royal *Grammar* and other rationalistic theories of language grows less out of an intrinsic interest in the history of ideas or a desire to unearth his own intellectual antecedents than out of a concern with disseminating to as wide an audience as possible a viable conceptual scheme which can serve as an alternative to the prevailing fabric of behavioristic empiricism. In this regard, it is relevant to point out that both *Cartesian Linguistics* and *Language and Mind* were published by major trade book publishers and were clearly intended for a relatively general intellectual audience as well as for specialists. Thus, to borrow freely a category from J. L. Austin, the illocutionary and perlocutionary effects of these works are as important as their content. Not only do Chomsky's works *describe* the rationalistic tradition in theory of language, but they in effect *revive* it, and each attack upon the contents of these works serves as evidence that their purpose is being realized. Even if, for example, scholars can show that the Port-Royal *Grammar* is not Cartesian, to do so they must carefully study both the *Grammar* and Descartes, and in effect Chomsky has won the war though he may have lost the battle. And if philosophers are now rallying to defeat a new theory of innate ideas, at least the theory has become a force to be reckoned with, and not a museum piece.[9]

[9] For philosophical discussions of innate ideas and related subjects prompted by Chomsky, see R. Edgley, "Innate Ideas" in *Knowledge and Necessity: Royal Institute of Philosophy Lectures*, Volume Three 1968-1969 (London: Macmillan and Co., 1970), 1-34; Sidney Hook (ed.), *Language and Philosophy* (New York: N. Y. U. Press, 1969), 51-223, containing articles by Noam Chomsky, W. V. O. Quine, Rulon Wells, Reuben Abel, Arthur Danto, Nelson Goodman, Sidney Hook, Paul Kurtz, Thomas Nagel, Robert Schwartz, Kenneth Stern, Marvin Zimmerman, Leo Rauch, Raziel Abelson; Zeno Vendler, *Res Cogitans* (Ithaca, N.Y.: Cornell U. Press, 1972). The latter work, by an analytical philosopher, begins with a quotation from the *Grammar*. See also "Symposium on Innate Ideas" in John Searle (ed.), *The Philosophy of Language* (Oxford: Oxford University Press, 1971), containing articles by Noam Chomsky, Hilary Putnam, and Nelson Goodman. Cf. also Noam Chomsky, "Explanatory Models in Linguistics" in Ernest Nagel, Patrick Suppes, and Alfred Tarski (eds.), *Logic, Methodology and Philosophy of Science* (Stanford: Stanford U. Press, 1962), 528-551.

If Chomsky is indeed attempting to expedite a paradigm shift, there is a sense in which he is immune to the most carefully documented and scholarly criticism. For in emphasizing the Port-Royal *Grammar* and related works, Chomsky may be viewed as speaking in the same logical tone of voice as did Freud when he declared that the poets had anticipated him, or as did Heisenberg when he sought his predecessors in ancient Greek philosophy.[10] It is not the case that either Freud or Chomsky wishes to set up an isomorphism between elements of their own work and that of their predecessors. Rather they wish to place their own work in a tradition which is perhaps more accessible to the reader, and thereby gain a hearing for ideas which, at their inception, stand outside the accepted paradigm. Thus Chomsky combats behaviorism by appeal to Cartesianism, even if the appeal is not historically precise, since Descartes (and the Port-Royal *Grammar*) are after all more easily grasped than *Aspects of the Theory of Syntax*, and furthermore, *Aspects of the Theory of Syntax* becomes more intelligible to one who has read the *Grammar*, insofar as the *Grammar* can serve as an intellectual decompression chamber between the accepted paradigm and the new one.

II

What is often ignored in the heady flush of Chomskyan "rediscovery" is that the *Grammar* did not lay dormant for the three hundred years following its publication awaiting a catalyst which would awaken interest in its content. On the contrary, the *Grammar* enjoys a long and variegated history, and, whatever one may conclude concerning its intrinsic merits, its seminal influence on the history of ideas, beginning virtually with the date of its publication, cannot be overestimated.

Its initial influence may be judged from its early publication history. The first edition of the book appeared on April 28, 1660,

[10] Werner Heisenberg, *Physics and Philosophy* (New York: Harper and Brothers, 1958).

and less than four years later, in March 1664, a second edition appeared. The third edition, significantly revised, was published in 1676, the fourth in 1679, and the fifth in 1709. As Guy Harnois, a twentieth century historian of linguistic theory, has indicated, "such a succession of reprintings for a work which is finally not literary indicates how widely it was received."[11] Elsewhere, Harnois remarks that "beginning in 1660 and for a long period thereafter, [the *Grammar*] was, for all who were concerned with language, the book which was authoritative. It was read, it was commented upon, and observations were adjoined to it down to the end of the eighteenth century."[12]

The early influence of the *Grammar* stemmed, at least in part, from the fact that it was taught almost universally in France. Dominique Bouhours, in his *Doutes sur la langue française* of 1674, indicates that in order to be a good grammarian, it is necessary to have a perfect mastery of the Port-Royal *Grammar*.[13] B. Lamy in his *L'Art de Parler* (1676) makes regular reference to the *Grammar*. Other works which directly reflect the influence of the *Grammar* to the mid-eighteenth century are Tallemand's *Remarques et décisions de l'Academie française* (1698), *Nouvelle grammaire française* by Mauger (1705), *Traité de la grammaire française* by Régnier des Marais (1706), the *Grammaire française* of Buffier (1709), who asserts concerning the Port-Royal *Grammar* that "the principles there are ingeniously displayed",[14] *Essais de grammaire* by Dangeau (1711), *Discours sur l'usage dans la langue française* by Grimarest (1712), which sets the Port-Royal model of a rational theory of language against the usage model urged by Vaugelas, the *Principes généraux et raisonées de la grammaire française* of Restaut (1730), and the *Essais de Gram-*

[11] Guy Harnois, *Les théories du langage en France de 1660-1821* (Paris: Société d'Édition "Les Belles Lettres", 1929), 33. (This and all subsequent translations from the French are by the editors.)

[12] Harnois, *Les théories*, 17.

[13] Cited in the Abbey Fromant, "Réflexions sur les fondements de l'art de parler" (1756), in A. Bailly (ed.), *Grammaire générale et raisonnée de Port-Royal* (Paris: 1846; reprinted Geneva: Slatkine Reprints, 1968), 232.

[14] Bailly (ed.), *Grammaire*, 233.

maire by the Abbey d'Olivet (1740). The Abbey Goujet in his *Bibliographie française* (1740), asserts that "all grammars must yield, as far as principles are concerned, to the *Grammaire générale et raisonée*".[15] Also in the Port-Royal tradition is the *Vrais principes de la langue française* of the Abbey Girard (1747).

The mid-eighteenth century saw the appearance of two major commentaries on the Port-Royal *Grammar*, which served to continue to focus the attention of theorists of language upon the *Grammar*. In 1754 there appeared a new edition of the *Grammar*, accompanied by the comments of Charles Duclos, secretary of the French Academy, of whom Jean Jacques Rousseau said, "c'est un homme droit et adroit" (he is a man both just and adroit).[16] These remarks were appended to the chapters of the *Grammar* and were an attempt to update, clarify, and correct the content of the original text. Although often critical of the *Grammar*, Duclos asserts that "Messieurs de Port-Royal establish ... the true foundations upon which rest the metaphysics of language".[17] Shortly thereafter in 1756 appeared the massive four hundred page commentary on the *Grammar* by the Abbey Fromant, Canon of Notre Dame, *Réflexions sur les Fondements de l'Art de Parler*. Fromant was the first writer to discuss the authorship of the *Grammar* as well as to comment critically upon the various editions. In addition to commenting on the text, he attempted to take cognizance of the claims made by other writers in the post-Port-Royal tradition of rational grammar, and thus his work contains a wealth of historically significant material. Fromant places himself squarely in the tradition of general and rational grammar, the tradition which he asserts "will always give a rational account of that which ordinary grammarians regard as an oddity of language, or as an inconstancy of usage".[18] At the close of his book, Fromant asks the question he sees as char-

15 Quoted in Harnois, *Les théories*, 34.

16 Quoted in Julien Tell, *Les Grammairiens français* 1520-1874 (Paris: 1874; reprinted Geneva: Slatkine Reprints, 1967), 136.

17 Charles Duclos, "Remarques" (1754), in Bailly (ed.), *Grammaire*, 48.

18 Fromant, "Réflexions", 249.

acteristic of this tradition — "what is language without the help of reason, and what is reason without the help of language?"[19]

The remarks are typical of the manner in which eighteenth century France received the Port-Royal *Grammar*, namely as embodying an attempt to provide a rational theory of language or universal philosophical grammar, which shows the intimate connection between language on the one hand and thought, reason, and logic on the other, and which views the laws of language as universal and inextricably bound up with the laws of thought. A recent historian of French linguistic theory asserts that the *Grammar* "laid the foundations for nearly all the works on language during the eighteenth century".[20] The influence of the *Grammar* also extended beyond the borders of France. This is illustrated by the fact that in 1751, the English theorist James Harris published his *Hermes, or a Philosophical Inquiry Concerning Universal Grammar*, a work in the tradition of Port-Royal. The first English translation of the Grammar (probably by Thomas Nugent, who translated Lancelot's *New Latin Method* and *New Greek Method*) appeared in 1753. Further an interest in general grammar developed in England during the latter half of the eighteenth century.[21] In Germany in 1729, Christian Wolff published his *Vernünftige Gedanken von Gott, der Welt und der Seele des Menschen* which was also in the same tradition.

This influence is carried on in the various general grammars which appeared in the mid-eighteenth century, following in the footsteps of Port-Royal. Exemplary among these works is the work of Beauzée, which appeared in 1767, *Grammaire générale.* In his preface, Beauzée explicitly places himself in the tradition of Port-Royal. Shortly thereafter in 1769 appeared the *Logique et Principes de grammaire* of Du Marsais, which enjoyed great success and attracted considerable attention. For Du Marsais,

[19] Fromant, "Réflexions", 404.

[20] Pierre Juliard, *Philosophies of Language in Eighteenth-Century France* (The Hague: Mouton and Co., 1970), 14.

[21] Salmon, review of Chomsky, *Cartesian Linguistics, Journal of Linguistics* 5-6 (1969-1970), 185.

the Port-Royal *Grammar* was "the great work concerning language",[22] and this book, as well as his earlier work, was suffused with the spirit of Port-Royal.

The writings of Condillac represent the chief example of the development of Lockean sensationalism in France. Condillac's psychologistic empiricism concerned itself with the acquisition of ideas and language. Despite the deviation of this philosophical tradition from the rationalism of the general grammarians, Condillac remains closely related to Port-Royal. Brunot groups him with the general grammarians, and sees his work as a synthesis of Locke and Port-Royal.[23] Condillac himself, in his *Principes de la grammaire française*, which appeared in 1775, sees a fundamental connection between language and thought as Arnauld and Lancelot had delineated. He expressly acknowledges his debt to Port-Royal: "we owe them a great debt because for centuries crude prejudice sealed everyone's eyes".[24]

The purely rationalist tradition of general grammar was carried on towards the turn of the century by Domergue in his *Grammaire générale analytique* (1796), by De Sacy in his *Principes de grammaire générale* (1799), by de Gerando in his *Des Signes et de l'art de penser dans leurs rapports mutuels* (1800), by the Abbey de Sicard in his *Éléments de grammaire générale appliqués à la langue française* (1807), and by Mazure in his *Éléments de grammaire générale* (1838). In the Condillac tradition, the chief figure in this period was Destutt de Tracy, his *Éléments d'idéologie* appearing in 1804. Sharing the admiration of Condillac for the Port-Royal *Grammar*, De Tracy nonetheless voiced predictable reservations: "One cannot sufficiently admire the rare talents of the Messieurs of Port-Royal, whose memory will always be dear to the friends of reason and truth, but it is regrettable that in their

[22] Harnois, *Les théories*, 17.
[23] Ferdinand Brunot, *Histoire de la langue française* (Paris: 1909-1913; reprinted Paris: Librairie Armand Colin, 1966). Tome VI, 911.
[24] Harnois, *Les théories*, 31.

grammar and in their logic, they did not go into greater detail concerning the formation of our ideas."[25]

Occasionally one encounters further examples of rational grammatical work influenced by Port-Royal well into the nineteenth century, but in the main, the tradition was clearly eclipsed during the second quarter of the nineteenth century by the advances in philology, and comparative and historical linguistics inaugurated by Bopp, Rask, Grimm and Humboldt. This is not to say that there are no Port-Royal elements in these latter theorists. R. H. Robins, for example, has pointed out that one of Bopp's aims may be seen "as that of giving formal expression to the logical analysis of verbs current among the Port-Royal grammarians".[26] As Chomsky suggests in *Cartesian Linguistics*, there are elements in Humboldt which are compatible with the Port-Royal approach, though he does not appear to have been influenced by them. Nonetheless, the linguistic paradigm had shifted away from the direct influence of the Port-Royal *Grammar*.

Interest in the *Grammar* did not totally disappear during the nineteenth and twentieth centuries. Between 1803 and 1846, six editions of the *Grammar* were published in France. In his introduction to the edition of 1846, M. A. Bailly affirmed that "general grammar is nothing other than the science of grammar. If one does not ordinarily refer to it by the latter designation, it is because the first truly philosophical work which was published concerning the science of grammar bore the title of *General and Rational Grammar*."[27] At about the same time in his masterpiece, *Port-Royal*, published between 1840 and 1860, Sainte-Beuve devotes one chapter to a discussion of the *Grammar* where he is basically unsympathetic to the rationalistic approach of the *Grammar*, both out of a Romantic reaction to excessive emphasis on reason, which he saw as imposing artificial strictures upon

[25] Quoted in Charles-Augustin Sainte-Beuve, *Port-Royal* (1840-1860; reprinted Paris: Librairie Gallimard, 1954), Volume II, 477.
[26] R. H. Robins, *A Short History of Linguistics* (Bloomington, Indiana: Indiana U. Press, 1967), 174.
[27] Bailly (ed.), *Granmaire*, v.

language, and out of a related admiration for the new movement in historical linguistics. Nonetheless, he recognizes the historical significance of the *Grammar*, referring to it as "a good little book, which, in its time, was excellent; which opened up a route down which many have travelled further without forgetting it, and which is still useful to those who travel it today".[28]

In 1874 appeared Julien Tell's *Les grammairiens français* 1520-1874, a work which, according to its subtitle, was designed to "serve as an introduction to the general study of languages". Although Tell is extremely hostile to the *Grammar*, he does not fail to recognize its importance: "If there is a name well known in grammar, it is surely that [of Port-Royal]."[29] After pointing out in a long polemic what he considers to be major flaws in the work, Tell complains that "this does not prevent, even in our day, various publishers from publishing grammars in the tradition of Port-Royal."[30]

A more balanced assessment of the *Grammar* appears in Ferdinand Brunot's multi-volumed *Histoire de la langue française*, the classic work in the history of the French language, which appeared in 1909-1913. Brunot clearly acknowledges the significance of the *Grammar*, and asserts that "the Port-Royal *Grammar* marks an epoch in the history of the French language, since Arnauld for the first time applied to French the philosophical method of Aristotle, Apollonius, Scaliger and Scioppius. In the general history of grammar, its importance is due, moreover, to the movement of thought which followed its publication. It is also due to the originality of the views which it exhibits."[31] Nonetheless, Brunot echoes Sainte-Beuve's reservations about the *Grammar*, arguing that this "linguistic Cartesianism was certainly a cause of delay in the development of [linguistic] science",[32] the excessive rationalism having the net effect of "enslaving" language.

[28] Sainte-Beuve, *Port-Royal*, 473.

[29] Tell, *Les grammairiens français* 1520-1874 (Paris: 1874. Reprinted in Geneva: Slatkine Reprints, 1967), 57.

[30] Tell, *Les grammairiens*, 58.

[31] F. Brunot, *Histoire de la langue française*, Tome IV, 55.

[32] Brunot, *Histoire*, Tome IV, 58.

It is interesting to note that the *Grammar* was not ignored by Leonard Bloomfield in his seminal behavioristically oriented work *Language* published in 1933. Predictably, Bloomfield does not speak favorably of the *Grammar*, but singles it out as "the most famous" treatise in the tradition of general grammar. According to Bloomfield, such grammars "attempted to demonstrate that the structure of various languages and especially of Latin embodies universally valid canons of logic. ... This doctrine persisted into the nineteenth century. ... It is still embodied in our school tradition, which seeks to apply logical standards to language. Philosophers, to this day, sometimes look for truths about the universe in what are really nothing but formal features of one or another language."[33]

It is only in the past decade that serious sympathetic study of the *Grammar* has been resumed. As mentioned earlier, this is due in large measure to Chomsky. But it is important to stress that the revival is not exclusively Chomskyan, as a few examples will indicate. In 1966, Herbert Brekle published his excellent critical facsimile edition of the *Grammar*. In his introduction, Brekle argues that the *Grammar* is "worthy of being studied attentively. This masterly work not only marks an important date in the history of French language ..., but it is in addition one of the works which is truly worthy of being included in the canon of linguistic works, ranking alongside of de Saussure's *Course in General Linguistics*, and the works written by Sapir, Bloomfield, etc."[34] In 1967, a superb scholarly study of the *Grammar* was published by Roland Donzé, *La Grammaire générale et raisonnée de Port-Royal*. It is significant that in the preface to this work, which is certainly the most careful and complete study of the *Grammar* ever attempted, Donzé indicates that there is a good deal yet to say concerning the *Grammar*. Finally, it is significant to note the interest displayed in the *Grammar* by Michel Foucault, in connection with his work in

[33] Leonard Bloomfield, *Language* (New York: Holt, Rinehart and Winston, 1933), 6.

[34] Herbert Brekle (ed.), *Grammaire générale et raisonnée* (Stuttgart-Bad Canstatt: Friedrich Frommann Verlag, 1966), xiii.

semiology. Foucault is the author of a long introduction to a 1969 French edition of the *Grammar* and discusses at length the significance of "general grammar" in his recent *Les Mots et les choses*, once again attesting to the intellectual viability of the Port-Royal *Grammar*.

III

The *General and Rational Grammar* is the joint product of two of the leading figures of the Port-Royal Abbey, a significant institution in French intellectual and educational history,[35] Antoine Arnauld (1612-1694) and Claude Lancelot (1615-1695). "Le Grand" Arnauld, whose works comprise forty-two volumes, is best known as a theologian and philosopher, Lancelot as a grammarian. In his theological writings, Arnauld was a staunch defender of Jansen's Augustinianism, and was in fact the major spokesman for Port-Royal during the bitter theological and political disputes concerning Jansenism. As a philosopher, Arnauld carried on controversies with Malebranche, Descartes (who sought Arnauld's reaction to his *Meditations*) and Leibniz. Arnauld was widely respected in his own time, and Voltaire later said of him that "no one was ever born with a more philosophical mind".[36] With Pierre Nicole, Arnauld wrote the Port-Royal *Logic* (1662), a major work which in many ways complements and augments the theory presented in the *Grammar*. Indeed, the portion of the *Logic* dealing with propositions was frequently published in editions of the *Grammar*.

In contrast to Arnauld, Lancelot was more of a linguist and educator than a philosopher. He is responsible for the Port-Royal works which dealt with particular languages — the *New*

[35] For a full discussion of the history of Port-Royal, see Sainte-Beuve, *Port-Royal*. For a brief survey, see the introduction to James Dickoff and Patricia James' edition of *The Art of Thinking: Port-Royal Logic* (Indianapolis: Bobbs-Merrill, 1964).

[36] Sainte-Beuve, *Port-Royal*, 473.

Methods for learning Latin (1656), Greek (1658), Italian (1660), and Spanish (1660), as well as *Le Jardin des Racines Grecques* (1657), translated as *The Primitives of the Greek*. These works, especially the *New Latin Method*, are of great value to the student of the *Grammar* and the Port-Royal theory of language, since they often deal with conceptual issues raised in the *Grammar*.

It has long been disputed whether Arnauld or Lancelot was the principal author of the *Grammar*. Traditionally, Lancelot was taken at his word in the *Preface* and principal authorship was credited to Arnauld. This is the view which was first defended by the Abbey Fromant,[37] and perpetuated by Sainte-Beuve,[38] Brunot,[39] Cognet in his biography of Lancelot,[40] and Brekle.[41] In his recent study of the *Grammar*, Donzé has attempted to moderate this view, and has argued for Lancelot's having played a more significant role than is usually allowed.[42] At present this question remains unresolved, and awaits, as Brekle has pointed out, a comparative study of the *Grammar* and the various *New Methods*.[43]

Nor is this the only significant scholarly problem surrounding the *Grammar*. A full and definitive study of the historical antecedents of and influences upon the Grammar has yet to be done. Until this is accomplished, it is difficult to assess the originality of Arnauld and Lancelot's contribution. Some notion of the task to be accomplished may be gained from considering a brief list of sources which have been claimed by various scholars to figure significantly in the *Grammar* or at least to embody ideas echoed in the *Grammar*. These include Aristotle, Apollonius of Alexandria, Priscian, the various speculative grammars of the Middle Ages, such as that of Thomas of Erfurt (long attributed erroneously

37 Fromant, "Réflexions", 231ff.
38 Sainte-Beuve, *Port-Royal*, 473ff.
39 Brunot, *Histoire*, Tome IV, 53.
40 Louis Cognet, *Claude Lancelot* (Paris: Editions Sulliver, 1950), 109.
41 Brekle (ed.), *Grammaire*, xv.
42 Roland Donzé, *La Grammaire générale et raisonnée de Port-Royal* (Berne: Editions Francke, 1967), 14ff.
43 Brekle, *Grammaire*, xv.

to Duns Scotus), Scaliger, Ramus, Sanctius, Helwig, Ratke, Bacon, Scioppius, Alsted, Vossius, Campanella, Vaugelas, Wallis, Buxtorf, Lobkowitz, Descartes, and Pascal.

IV

In preparing the present volume, the editors have attempted to place before the reader an English translation of the Port-Royal *Grammar* which on the one hand is comprehensible, and on the other still retains some of the style of the seventeenth century. We have further provided such additional material as was necessary to clarify the text, the historical importance of the work, and the current concern with the *Grammar* in the context of Chomsky's discussions of its significance. The translation was prepared from the third edition of the *Grammaire générale et raisonnée*, as reprinted in the excellent facsimile edition of Herbert Brekle. This edition contains the final set of additions, changes and corrections made by the authors themselves. We have also referred to the first edition of 1660, reprinted in facsimile by Scolar Press, and to the 1846 edition of A. Bailly.

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GENERAL AND RATIONAL GRAMMAR

CONTAINING

The foundations of the art of speaking explained in a clear and natural manner;

The reasons for what is common to all languages, and for the principal differences among them;

And several new remarks concerning the French language.

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PREFACE

The project wherein I[1] find myself engaged, rather by chance than by my own choice, of working on the grammars of different languages, has often led me to seek the reasons for several things which are either common to all languages or are particular to only some of them. But having on occasion found difficulties in this endeavor which halted me as I chanced upon them, I related them to one of my friends[2] who, although he had never applied himself to this sort of science, did not fail to provide me with a great many opportunities for resolving my doubts. My very questions were the cause of his making various reflections upon the true foundations of the art of speaking, which, when he discussed them with me, I found so substantial that I felt obliged not to allow them to be lost, having seen nothing in either the ancient grammarians nor in the modern ones which was more searching or more accurate concerning this material. That is why I once again drew upon his generosity, so that he dictated them to me

[1] Claude Lancelot, who wrote grammars for Latin, Greek, Italian, and Spanish.

[2] Antoine Arnauld. For discussions of the respective roles of Lancelot and Arnauld in the creation of the *Grammar*, see Herbert Brekle's Introduction to his critical edition of the *Grammar*, *Grammaire générale et raisonnée ou La Grammaire de Port-Royal* (Stuttgart: Friedrich Frommann Verlag, 1966), I, xiv-xv. See also Ferdinand Brunot, *Histoire de la langue française* (Paris: Librairie Armand Colin, 1966) IV, Première partie, 53; Roland Donzé, *La Grammaire générale et raisonnée de Port-Royal* (Berne: Editions Francke, 1967), 14-15; and the Abbey Fromant, *Supplément à la grammaire générale et raisonnée*, Préface, in A. Bailly's 1846 edition of the *Grammaire* (Geneva: Slatkine, 1968), 232ff.

during his spare moments; and having thus collected them and put them in order, I composed this small treatise. Those who have respect for works of reason will perhaps find in this one something which will give them satisfaction, and will not scorn the subject matter; since if speech is one of the great advantages of man, it ought not be contemptible to possess this advantage with all the perfection which is suited to man; that is, not only to have use of it, but also to penetrate into the reasons behind it and to do through knowledge what others do only by custom.

GENERAL AND RATIONAL GRAMMAR

Grammar is the art of speaking.

Speaking is explaining one's thoughts by signs which men have invented for this purpose.

It has been found that the most useful of these signs are sounds and vocals.

But because these sounds are transitory, other signs were invented in order to make them lasting and visible; these are the characters of writing which the Greeks called γράμματα (grammata), whence comes the word *grammar*.

Thus one can consider two things in regard to these signs. First, what they are by their nature, that is to say, as sounds and characters.

Second, their signification, that is to say, the manner in which men utilize them for signifying their thoughts.

We will treat of the former in the first part of this grammar, and of the latter, in the second part.

PART ONE

The letters and characters of writing

I

OF LETTERS AS SOUNDS, AND FIRST OF VOWELS

The different sounds that are utilized for speech, and which are called letters, were found in a completely natural manner which is worthy of note.

Since the mouth is the organ which forms them, it has been noted that there are sounds so simple that they require only a mere opening of the mouth in order that they be heard and that they form a distinct vocal, and hence it is that they are called *vowels*.[1]

It has also been noted that there are other sounds that depend on the specific application of some part of the mouth such as the teeth, the lips, the tongue, the palate. Such sounds cannot, however, become complete sounds, save by the opening of the mouth mentioned above, that is to say, by their conjunction with the primary sounds, and for this reason, they are called *consonants*.[2]

Ordinarily, one counts five of these vowels: *a*, *e*, *i*, *o*, *u*, but besides the fact that each of those can be short or long, which gives rise to a very considerable variety in the sound, it seems that if one were to consider the difference among the simple sounds as a function of the various openings of the mouth, one could add four or five vowels to the five previous ones. The open *e* [ɛ] and the closed *e* [e] are sounds which differ sufficiently to make

[1] Maurice Grevisse, in *Le Bon Usage* (Paris: Editions J. Duculot, 1964), 28, gives the following etymology for *voyelle* (vowel): *Voyelle* is derived from the Old French *voiel*, which is in turn a French version of the Latin *vocalis*, the adjective form of *vox* (voice). The English word "vowel" is similarly derived.

[2] Grevisse, 31, derives the word *consonne* (consonant) from the Latin *consona*, that which sounds with (the vowel).

two different sounds, as in *mer* [mɛr, sea] and *abimer* [abime, to spoil], or as the first and last *e* in *netteté* [nɛtəte, neatness] and *fèrré* [fɛre, shod], etc.[3]

And in the same manner, we have the open *o* [o:] and the closed *o* [ɔ], as in *côte* [ko:t, coast] and *cotte* [kɔt, petticoat], *hôte* [o:t, host] and *hotte* [ɔt, basket].[4] For, although the open *e* and the open *o* both have within them something long, and the closed *e* and the closed *o* have something short, nonetheless, these two vowels vary more by being open and closed than an *a* or *i* vary by being long or short; and this is one of the reasons why the Greeks invented two figures for each of these two vowels, rather than for the other three.[5]

Moreover, the *u*, pronounced *ou* [u] as the Latins did and as the Italians and Spanish still do, has a very different sound from the *u* [y] as the Greeks pronounced it and as the French pronounce it.

Eu [ø] as in *feu* [fø, fire] and *peu* [pø, little] still is a simple sound, although we write it with two vowels.

There remains the mute or feminine *e* [ə], originally only an unvoiced sound, which is conjoined with consonants when one wishes to pronounce them without a vowel, as when they are immediately followed by other consonants, for example, in the word *scamnum* (bench); it is what the Hebrews called *schwa*, especially when it occurs at the beginning of a syllable. And this *schwa* is necessarily found in all languages, although one might not be aware of it, as there is no character which marks it. But some of the vernacular languages like German and French have marked the *schwa* by the vowel *e*, adding this sound to those it already

[3] Here and in what follows the International Phonetic Alphabet will be used for expressing the points about pronunciation made by Arnauld and Lancelot. Translations of French or other foreign words cited appear in brackets or parentheses.

[4] The *Grammar's* use of the terms "open o" and "closed o" are directly opposite to the contemporary use of these terms. We have thus expressed what the *Grammar* calls the "open o" by use of the IPA symbol for what is today called the "closed o".

[5] In Greek, the epsilon (E) represents what Arnauld and Lancelot call the closed e, the eta (H), the open e. The omega (Ω) represents what they would call the open o, the omicron (o) represents the closed o.

had, and moreover, they have made this feminine *e* form a syllable with its consonant, as in the second syllable in *netteté* [nɛtəte, neatness], *j'aimerai* [ʒɛməre, I will love], *donnerai* [dɔnəre, I will give], etc. which was not accomplished by the *schwa* in other languages, although this is often mistakenly done by people who pronounce the Hebrew *schwa.* What is even more remarkable is that the mute *e* often forms a syllable all by itself in French, or rather a half-syllable, as in *vie* [viə, life], *vue* [vyə, sight], *aimée* [ɛmeə, loved].[6]

Thus, without considering the difference which obtains between vowels of the same sound because of length or shortness, one can still distinguish as many as ten vowels, attending only to the simple sounds and not to the characters: *a,* [ɑ], *ê* [ɛ], *é* [e], *i* [i], *o* [ɔ], *ô* [o], *eu* [ø], *ou* [u], *u* [y], mute *e* [ə].[7]

[6] The pronunciation of *vie*, *vue*, and *aimée* indicated in the above passage are encountered today only in verse. Cf. Grevisse, 51. In the seventeenth century, however, it appears that they were sometimes pronounced as indicated in the *Grammar*, although this was the crucial century of transition for the pronunciation of this e. See Brunot, IV, Première partie, Livre III, Chapitre VI, especially 192; and II, Livre III, Section II. M. K. Pope, *From Latin to Modern French* (Manchester: Manchester University Press, 1966), 117-18, indicates that the grammarians of the seventeenth century stressed the syllabic value of this e, even though it was not in fact often pronounced by educated people (§ 271, § 273).

[7] As early as 1754 the French Academician, Charles Duclos, in his *Remarques* on the *Grammar*, criticized the view of Arnauld and Lancelot that there were only ten vowels. See Bailly, 7ff where Duclos' *Remarques* on various chapters of the *Grammar* are reprinted. Grevisse, 28, distinguishes sixteen vowels and three semi-vowels.

II

OF CONSONANTS

If we do with the consonants what we have done with the vowels, and only consider the simple sounds which are in use in the principal languages, we shall find that there are only those which are listed in the following table, where what is in need of further explication is marked by numerals which refer to clarifications on the next page.

Consonants which have only a simple sound

Latin and vernacular	Greek	Hebrew
B, b	Β β	ב (1) Beth
P, p	Π π	פ Pe
F, f (2) ph	Φ φ (2)	(3)
V, v consonant	Ϝ (4)	(5)
C, c (6)	Κ κ	כ Caph
G, g (7)	Γ γ	ג Gimel
j consonant	*	י Iod
D, d	Δ δ	ד Daleth
T, t	Τ τ	ט Teth
R, r	Ρ ρ	ר Resch
L, l	Λ λ	ל Lamed
ill. (8)	*	*
M, m	Μ μ	מ Mem
N, n	Ν ν	נ Nun
gn. (9)	*	*
S, s	Σ σ	ס Samech

Z, z	Z ζ (10)	ז Zaiin
CH, ch (11)	*	ש Schin
H, h (12)	˓ (13)	ח (14) Heth

(1) With a dot, called *dagesch lene*.[1]

(2) The Φ is now pronounced as the Latin F is pronounced, although it formerly was a more aspirated sound.

(3) This is also how the Hebrew *pe* is pronounced, when it has no dot, as when it occurs at the end of a syllable.[2]

(4) This is the figure of the *Aeolian Digamma*, which was like a double Gamma and which was inverted in order to distinguish it from the capital F. And this digamma had the sound of the consonant V.[3]

(5) Like the *beth* when it is at the end of a syllable.

(6) Always pronounced as before *a*, *o*, *u*, that is to say, as a *k*.

(7) Always pronounced as before *a*, *o*, *u*.

(8) *ll* [j], as in *fille* [fi:j]. The Spanish use it to begin words like *llama*. The Italians mark it by *gl*.

(9) Liquid *n* which the Spanish mark by a dash over the *n*, and which we [the French] like the Italians mark by *gn*.

(10) As it is pronounced today, for formerly it was pronounced like δσ.

(11) As it is pronounced in French [ʃ] in the words *chose*, *cher*, *chu*, etc.

(12) Aspirated [h], as in the words *hauteur*, *honte*, because in words where it is not aspirated, like *honneur*, *homme*, it is only a character and not a sound.[4]

[1] *Dagesch lene* is the Hebrew sign for hardening letters, and is used only in the כ׳ ג׳ ד׳ כ׳ פ׳ ת as an indication that they should be pronounced with their original hard sound, i. e. without aspiration.

[2] In the latter case, the Hebrew *pe* is called a *phe*.

[3] The digamma is discussed in Lancelot's *New Method of Learning with Facility the Greek Tongue*, Book I, Chapter XII. (See below, Part I, Chapter V, n. 3).

[4] The words cited in the text are no longer aspirated in contemporary French. Grevisse, 35, points out that the aspirated *h* was originally introduced into French via Germanic words which came into the language. Pierre Fouché,

(13) The harsh breathing of the Greeks, instead of which they formerly used the *Eta* H, from which the Latins have taken the H.

(14) According to its true sound, which is aspirated.

If there are some other simple sounds, such as perhaps the aspiration of the Hebrew *aiin*, [ע], they are so difficult to pronounce that they might as well not be counted among the letters which enter into ordinary language usage.[5]

As regards all the other letters which are found in the Hebrew, Greek, Latin, and vernacular alphabets, it is easy to show that they are not simple sounds, and that they are related to some of these sounds that we have noted.

Thus it appears that of the four Hebrew gutturals, the *aleph* [א] was formerly the same as [the sound of] an *a*, the *he*, [ה] an *e*, the *aiin*, an *o*. This can be seen by the order of the Greek alphabet, which was derived from the Phoenician alphabet as far as the τ, so that only the *heth* was properly aspirated.[6]

At present the *aleph* is only used in writing, and has no sound save for the vowel to which it is joined.

The letter *he* has scarcely any more sound and is at most only distinguished from the *heth* because the one is a weaker aspiration, and the other a stronger. However, several people consider only the *he* aspirated and pronounce the *heth* like a χ, *cheth.*

As far as the *aiin* is concerned, some make the sound by aspirating through the throat and the nose, but all Oriental Jews give it no sound at all, no more than is given to the *aleph.* And some others pronounce it like a liquid *n.*

The *thau* [ת] and the *teth* either have the same sound or are distinguished only in that one is aspirated and the other is not, and thus one of the two is not a simple sound.

The same holds true of the *caph* and the *coph* [ק].

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in his *Phonétique historique du français* (Paris: Editions Klincksieck, 1952), 580, cites *honte* as such a Germanic derivation.

[5] This passage is worthy of note as typical of the ethnocentrism which often emerges in the *Grammar.*

[6] The argument of this passage is based upon the parallel derivation of the Greek and Hebrew alphabets from the Phoenician.

The *tsade* [צ] is also not a simple sound, but amounts to a *t* and an *s*.

Similarly, in the Greek alphabet, the three aspirated letters, Φ, χ, θ, are not simple sounds, but are made up of π, κ, T, which are aspirated.

And the three doubles, ζ, ξ, ψ, are clearly only written abbreviations for *ds*, *cs*, *ps*.

The same is true for the Latin x, which is nothing more than the ξ of the Greeks.

The q and the k are merely the c pronounced according to its natural sound.

The W of the Northern languages is only the Roman u, that is to say, *ou* in French when it is followed by a vowel, as in *winum*, *ouinum*; or the consonant V when it is followed by a consonant.

III

OF SYLLABLES

The syllable is a complete sound which is sometimes composed of a single letter, but ordinarily of several, from whence comes the name syllable, συλλάβη, *comprehensio*, or assemblage.

A vowel can be a single syllable.

Two vowels can also form a syllable, or be connected in the same syllable. But then they are called *diphthongs*, because their two sounds are joined in one complete sound, as in *mien* [mjɛ̃, mine], *hier* [*jɛr, yesterday], *ayant* [ɛjɑ̃, having], *eau* [o, water].[1]

Most diphthongs have been lost in the ordinary pronunciation of Latin, since the *ae* and the *oe* are now pronounced simply like an *e*. But they are still retained in Greek by those who pronounce it properly.

As far as the vernacular languages are concerned, sometimes two vowels make only a simple sound, as we have seen in the case of the *eu*, and again in French, *oe* and *au*. But they nevertheless have true diphthongs such as *ai*, *ayant* [ɛjɑ̃, having]; *oüe*, *foüet* [fuɛ, whip]; *oi*, *foi* [fwa, faith]; *ie*, *mien* [mjɛ̃, mine], *premier* [prəmje, first]; *eau*, *beau* [bo, handsome]; *ieu*, *Dieu* [djø, God].[2] It is necessary to note that the latter two are not triphthongs, as

[1] As is apparent from the phonetic symbol given for *eau*, it is no longer a diphthong. M. K. Pope, § 539, 200, indicates that "complete monophthongization [of *eau*] to o was not formally accepted till after the middle of the seventeenth century". Arnauld and Lancelot probably heard it as [əo]. For a history of the movement of *eau* from a triphthong to a monophthong see Pierre Fouché, II, 337.

[2] *ieu* also developed from a triphthong. Cf. M. K. Pope, 201-202.

some have wanted to say, because *eu* and *au* only have the sound of one simple vowel, and not of two.

Consonants alone cannot compose a syllable; rather it is necessary that they be accompanied by vowels or diphthongs, which they either follow or precede. The reason for this was touched upon above in Chapter I.

Nevertheless, several consonants can follow one another in the same syllable, so that there can be as many as three before the vowel, and two after it, as in the Latin word *scrobs* (ditch), and sometimes two before and three after, as in the Latin word *stirps* (root). The Hebrews never allow more than two at the beginning of a syllable or at the end of it, and all of their syllables begin with consonants, considering the *aleph* as a consonant, and a syllable never has more than one vowel.

IV

OF WORDS AS SOUNDS, WHERE THE ACCENT IS ALSO DISCUSSED

We are not yet speaking of words in respect of their signification, but only of what pertains to them as sounds.

Whatever is pronounced or written separately is called a word. There are words of one syllable such as *moi* (me), *da* (yes), *tu* (thou), *saint* (saint), which are called monosyllables; and of several syllables, such as *père* (father),[1] *dominus* (master), *miséricordieusement* (mercifully), *Constantinopolitanorum* (of the Constantinopolitans), etc., which are called polysyllables.

What is most noteworthy in the pronunciation of words is the accent, which is an elevation of the voice on one of the syllables of the word, after which the voice is necessarily lowered.

The elevation of the voice is called the acute accent, and its lowering the grave accent.[2] But because there were certain long syllables on which the voice was both elevated and lowered in Greek and Latin, the Greeks and Latins invented a third accent that they called the circumflex. This was at first written thus (^) and later thus (~), and comprised the other two accents.[3]

[1] As late as the seventeenth century, *père* was still pronounced as di-syllabic [perə]. Cf. Alfred Ewert, *The French Language* (London: Faber and Faber, 1933), 49, and John Fox and Robin Wood, *A Concise History of the French Language* (Oxford: Basil Blackwell, 1968), 29.

[2] The acute accent was first introduced into French by Robert Estienne in his edition of the *De corrupti sermonis emendatione* of Mathurin Cordier in 1530 to distinguish the final e from the ə. The grave accent was apparently also introduced in the sixteenth century, to distinguish the monosyllabic words such as *à*, *où*, and *là* from their homonyms.

[3] The circumflex which was written as a tilde appeared in Greek, not in French. The French circumflex was first introduced by Jacobus Sylvius (Jac-

A complete discussion of the accents in Greek and Latin may be found in the *New Methods* for learning the Greek and Latin languages.[4]

The Hebrews have many accents,[5] which it is believed formerly had a musical function, and several are now put to the same use as our periods and commas.

But the accent which they call natural and grammatical is always on the penultimate or on the last syllable of words. Those which are on the preceding syllables are called rhetorical accents, and do not prevent the other accents from always being on one of the last two syllables. And it is necessary to note here that the same accent marks which mark the distinction of clauses, such as the *atnach* and the *silluk*, do at the same time also mark the natural accent.[6]

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ques Dubois) in his *In Linguam Gallicam Isagœge* of 1531 to denote diphthongs.

[4] Claude Lancelot, *Nouvelle Methode pour apprendre facilement et en peu de temps la langue latine* (1644); *Nouvelle Methode pour apprendre facilement la langue greque* (1655). In the eighteenth century these works appeared in English translation by Thomas Nugent. All references to these two works will be cited from the following editions of Nugent's translations: *A New Method of Learning with Facility the Latin Tongue* (London: Wingrave and Collingwood, 1816), 2 vols., hereafter cited as *New Latin Method*; *A New Method of Learning with Facility the Greek Tongue* (London: Wingrave and Collingwood, 1817), hereafter cited as *New Greek Method.* For the discussion of accents mentioned in the text see the *New Latin Method*, II, section II, 353ff. and the *New Greek Method*, Book IX, Chapter VI-VIII, 437ff.

[5] See [William] Gesenius, *Gesenius' Hebrew Grammar*, ed. E. Kautzsch, trans. G. W. Collins and A. E. Cowley (Oxford: Clarendon Press, 1898), § 15, 56ff. on Hebrew accents.

[6] The *Silluk* (literally "end") is written under the last word of every Biblical verse, under the stressed syllable. The *atnach* (or *atnachta*, literally "rest") is the principal divider in the middle of the verse.

V

OF LETTERS CONSIDERED AS CHARACTERS

We have thus far been unable to speak of letters which we have not indicated by their characters, but nevertheless we have not considered them *qua* characters, that is to say, in terms of the relationship which these characters have to sounds.

We have already said that sounds have been adopted by men as signs of thoughts, and that men have also invented certain figures to serve as signs of these sounds. But although these figures or characters, when they were first instituted, immediately signified only sounds, nevertheless men often carry their thoughts of the characters to the thing itself which is signified by the sounds. In this way the characters can be considered in these two ways, either as simply signifying the sound, or as helping us to conceive that which the sound signifies.

In considering the characters according to the first of these modes, four rules should have been observed to allow them to fulfill their function to the highest degree.

(1) That every figure mark some sound; that is to say, that no thing is written which is not pronounced.

(2) That every sound is marked by a figure; that is to say, that no thing is pronounced which is not written.

(3) That each figure mark only one sound, either simple or double. For it is not an imperfection in writing that there be double letters, since they facilitate writing by abbreviating it.

(4) That the same sound is not marked by different figures.

But, considering characters according to the second mode, that is to say, as assisting us in conceiving of that which the sound

signifies, it sometimes happens that it is to our advantage that these rules are not always observed, at least the first and last rules.

This is so because it often occurs, especially in the case of languages derived from other languages, that there are certain letters which are not pronounced, and which thus are useless as far as sound is concerned, but which nonetheless help us perceive what the words signify. For example, in the words *champs* (fields) and *chants* (songs), the *p* and the *t* are not pronounced, but are nevertheless useful for signification, since through them we understand that the former comes from the Latin *campi* and the latter from the Latin *cantus*.

In the same way in Hebrew there are words which differ only in that one ends with an *aleph*, and the other with a *he*, neither of which is pronounced, as in ירא, which signifies "to fear", and ירה, which signifies "to throw".

And from this it can be seen that those who complain so much about what is written deviating from what is pronounced, are not always right, and that what they call abuse is sometimes not without utility.

The difference between upper and lower case letters also seems contrary to the fourth rule, which is that the same sound should always be marked by the same figure. And indeed this difference would be altogether useless if characters were considered only as marking sounds, since an upper and a lower case letter have just the same sound. From whence it comes that the ancients did not have this distinction, as the Hebrews still do not, and several people believe that the Greeks and the Romans for a long time wrote only with upper case letters. Nevertheless this distinction is very useful for beginning complex sentences and for distinguishing proper nouns from others.

There are also different sorts of writing in the same language, as, for example, Roman and Italic in the printing of Latin and of several vernacular languages, which can be usefully employed in indicating meaning, in distinguishing either certain words, or certain speeches, although these differences in the print do not alter anything in their pronunciation.

Here then is something which can be adduced in order to excuse the differences which exist between pronunciation and writing. But this does not obviate the fact that several of them were created without any good reason, and solely through a corruptive process which has slipped into language. For it is an abuse to have given, for example, to *c* an *s* pronunciation before the *e* and *i*; to have pronounced *g* before these same two vowels in a manner different from the way it is pronounced before the others, to have softened the *s* between two vowels, and to have given the *t* an *s* sound before *i* followed by another vowel as in *gratia*, *actio*, in Latin and *action* in French. More can be found on this matter in the treatise on letters in the *New Latin Method*.[1]

Some people have imagined that they could correct this defect in the vernacular languages by inventing new characters, as Ramus did in his *Grammar* for the French language,[2] excising all those which are not pronounced, and writing each sound with the letter to which this pronunciation is proper, as in putting an *s* instead of a *c*, before *e* and *i*. But they ought to have considered that beyond the fact that this would often be a disadvantage to the vernacular languages for the reasons we have cited, they were undertaking an impossible task. For one must not fancy that it is easy to make a whole nation change so many of the characters to which it has been long accustomed, since the Emperor Claudius himself could not manage to introduce even one character which he wished to put into use.[3]

All that one could do most reasonably would be to excise the letters which fulfill no function as far as pronunciation, meaning, or the analogy of languages[4] are concerned, as has already been

[1] *New Latin Method*, Book IX, "Of Letters, and the Orthography and Pronunciation of the Ancients", 246ff.

[2] Peter Ramus (Pierre de la Ramée), *Gramere* (1562). The full orthographical system is to be found in the second edition of 1572.

[3] Claudius attempted to institute the use of an inverted digamma (ⅎ) to represent the consonant v. Cf. the *New Latin Method*, Book IX, Chapter VI, Section II, 263.

[4] I. e. the analogy of languages in the sense of the etymological relationships between languages, as exemplified earlier in this chapter by the derivation of *champs* and *chants* from *campi* and *cantus*.

initiated, and, conserving those which are useful, to introduce small marks which allow us to see that they are not pronounced, or which make us understand the different pronunciation of the same letter. A dot inside or under a letter could serve to indicate the first usage, as in *temps*. The *c* already has a cedilla, which could be used before *e* and *i*, as well as before the other vowels. The *g* with its tail not completely closed could indicate the sound which it has before *e* and *i*. These are presented only as examples.[5]

[5] The sixteenth and seventeenth centuries are marked by a concern with creating language systems, both for purposes of orthography and, of greater importance, for purposes of unambiguous expression and increased precision. Perhaps the most famous of these proposals is Leibniz's notion of a "Universal Characteristic". For a succinct survey of this movement of thought see R. H. Robins, *A Short History of Linguistics* (Bloomington, Ind.: Indiana University Press, 1968), 112ff. Cf. also Ferdinand Brunot, *Histoire de la langue française* (Paris: 1909-1913; reprinted Paris: Librairie Armand Colin, 1966).

VI

OF A NEW METHOD FOR EASILY LEARNING TO READ IN ALL SORTS OF LANGUAGES

This method primarily concerns those who have not yet learned to read.

It is certain that there is no difficulty for those who are simply beginning to learn the letters, but rather that the difficulty lies in putting them together.

Now what makes this more difficult is that since each letter has its own name, it is pronounced differently when it is alone from when it is conjoined with other letters. For example, if one is teaching a child to spell the word *fry*, one tells him to pronounce [ɛf], [ar], [wai], which invariably confuses him when he later wishes to join these three sounds together in order to make the sound of the syllable *fry* [frai].

It seems then, as has already been noted by some discerning people, that the most natural way of teaching this would be for those who teach reading at first to teach children to recognize their letters only by the sound of their pronunciation. Thus, for example, in order to teach the reading of Latin, one should only give one name, "e", to the simple *e*, the *ae*, and the *oe*, because they are all pronounced in the same fashion, and one should similarly treat the *i* and the *y*, and again the *o* and the *au*, as they are pronounced today in France; the Italians make the *au* into a diphthong.

Similarly, consonants should be named solely by their natural sound, adding only the mute *e* which is necessary for pronunciation. For example the name for *b* should be taken from the way it is pronounced in the last syllable [bə] of *tombe*, the name for *d*

from the way it is pronounced in the last syllable [də] of *ronde*, and similarly for the other consonants which have only one sound.

As for those consonants which have several sounds, such as *c*, *g*, *t*, *s*, one should name them after their most natural and most commonplace sound, which is the [k] sound in the case of *c*, the [g] sound in the case of *g*, the sound of the last syllable of *forte* [tə] in the case of *t*, and of the last syllable of *bourse* [sə] in the case of *s*.

Next one should teach the prospective reader to pronounce the syllables *re*, *ci*, *ge*, *gi*, *tia*, *tie*, *tii*, separately, and without spelling out their components. And he should be made to understand that the *s* between two vowels is pronounced like a *z*, *miseria*, *misère* (misery), as if they were *mizeria*, *mizere*, etc.

These are the most general observations concerning this new method for learning to read, which would certainly be very useful to children. But in order to present this method in all of its perfection, a separate treatise would be required, where the remarks which are necessary in order to adjust this method to all languages could be made.[1]

[1] Contemporary educational theory recognizes a "phonic" method for teaching reading very similar to the one described in this section. Cf. for example E. Dechant, *Linguistics, Phonics, and the Teaching of Reading* (Springfield, Ill.: Charles C. Thomas, 1969). Jan Miel, in "Pascal, Port-Royal, and Cartesian Linguistics", *Journal of the History of Ideas* 30 (1969), 262, has pointed out that this method was derived from Pascal. See Pascal's *Oeuvres Complètes* (Paris: Bibliothèque de la Pléiade, 1954), note to p. 575, 1454-1455.

PART TWO

The principles and reasons on which the various forms of the signification of words are founded

I

THAT THE KNOWLEDGE OF WHAT OCCURS IN OUR MINDS IS NECESSARY FOR UNDERSTANDING THE FOUNDATIONS OF GRAMMAR; AND THAT ON THIS DEPENDS THE DIVERSITY OF WORDS WHICH COMPOSE DISCOURSE.[1]

Until now we have only considered the material element of speech, and that which is common, at least as far as sound is concerned, to both men and parrots.

It remains for us to examine the spiritual element of speech which constitutes one of the greatest advantages which man has over all the other animals, and which is one of the greatest proofs of man's reason.[2] This is the use which we make of it for signifying our thoughts, and this marvelous invention of composing from twenty-five or thirty sounds an infinite variety of words,[3] which

[1] This chapter title may be seen as expressing one of the fundamental conceptual themes of the *Grammar*, i.e. the rationalistic basis of grammar.

[2] The notion of the flexibility of language response as separating men from beasts is taken from Descartes. See for example the *Discourse on the Method of Rightly Conducting the Reason*, Part V, where Descartes indicates the method by which we may "recognise the difference that exists between men and brutes.... It is a very remarkable fact that there are none so depraved and stupid, without even excepting idiots, that they cannot arrange different words together, forming of them a statement by which they make known their thoughts; while, on the other hand, there is no other animal, however perfect and fortunately circumstanced it may be, which can do the same." *Philosophical Works of Descartes*, trans. E. S. Haldane and G. T. Ross (New York: Dover, 1955), I, 116-17. For a full discussion of this aspect of Descartes' thought, see Noam Chomsky, *Cartesian Linguistics* (New York: Harper and Row, 1966), 3ff., and *Language and Mind* (New York: Harcourt, Brace and World, 1968), Chapter 1.

[3] Chomsky sees the emphasis upon the fact that in the employment of language we "make infinite use of finite means", in Humboldt's locution, as well as the attempt to give an account of this creative potential, as one of the key contributions of the tradition of rationalistic linguistic theory or "Cartesian linguistics". He sees the *Grammar* as a major landmark in this tradition, in which he also places his own work. See *Cartesian Linguistics*, Chapter 1;

although not having any resemblance in themselves to that which passes through our minds, nevertheless do not fail to reveal to others all of the secrets of the mind, and to make intelligible to others who cannot penetrate into the mind all that we conceive and all of the diverse movements of our souls.

Thus words can be defined as distinct and articulate sounds which men have made into signs for signifying their thoughts.[4]

This is why the different sorts of signification which are embodied in words cannot be clearly understood if what has gone on in our minds previously has not been clearly understood, since words were invented only in order to make these thoughts known.

All philosophers teach that there are three operations of our minds: *conceiving*, *judging*, and *reasoning*.[5]

Conceiving is only the simple attention of the mind to things, either in a purely intellectual manner, as when I think of the notions of being, duration, thought, or God, or else accompanied by corporeal images, as when I imagine a square, a circle, a dog, or a horse.

Judging is the affirmation that a thing of which we conceive is

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Language and Mind, Chapter 1; *Aspects of the Theory of Syntax* (Cambridge, Mass.: M.I.T. Press, 1965), Chapter 1; and *Current Issues in Linguistic Theory* (The Hague: Mouton, 1964), Chapter 1. See also Donzé, Chapter 1. For an interesting attack on Chomsky's view of Arnauld and Lancelot as "Cartesian", but as rather being pre-Cartesian, more directly influenced by Sanctius' *Minerva, sive de causis linguae latinae commentarius* (1587), see Robin Lakoff's review of H. Brekle's edition of the *Grammar*, in *Language* 45 (1969), 343ff., especially 355 and 363.

[4] The view that words are signs of thoughts represents a dominant theory in western philosophical thought not subject to serious criticism until the twentieth century. For a proto-typical account of the view of the relationship among words, thoughts and things which figured strongly in the intellectual heritage of Port-Royal, see Augustine's *De Magistro*.

[5] For detailed discussions of the "operations of the mind", see the Port-Royal Logic by Antoine Arnauld and Pierre Nicole, *La Logique ou l'Art de penser* (1662). A convenient recent French critical edition is that of Pierre Clair and François Girbal (Paris: Presses Universitaires de France, 1965). A recent translation is that of James Dickoff and Patricia James, *The Art of Thinking: Port-Royal Logic* (Indianapolis: Bobbs-Merrill, 1964). All subsequent references to this work will be to this English edition, and will be cited as *Logic*. Much of the material in this work bears on the *Grammar*.

such or is not such, as when, having conceived of what *the earth* is and what *roundness* is, I affirm of the earth that it is round.

Reasoning is the use of two judgments in order to make a third, as when, having judged that all virtue is laudable, and that patience is a virtue, I conclude that patience is laudable.

From whence it can be seen that the third operation of the mind is only an extension of the second. And thus it will suffice for our endeavor to consider only the first two operations or that part of the first which is contained in the second. For men scarcely speak simply to express what they conceive, but rather almost always in order to express the judgments which they make from the things which they conceive.

A judgment that we make about things, as when I say, *The earth is round*, is called a *proposition*, and thus every proposition necessarily embodies two terms: the first is called the *subject* and is that of which one predicates, as *earth* in the above example, and the second is called the *predicate* and is that which is predicated, as *round* in the above example. In addition to the terms, a proposition includes the connection between the two terms, the copula, *is*.

Now it is easy to see that the two terms properly belong to the first operation of the mind, because it is this which we conceive and which is the object of our thought, and that the connection belongs to the second operation, which could properly be termed the action of our minds, and the manner in which we think.

And thus the greatest distinction to be made about what occurs in our minds is to say that one can consider the object of our thought on the one hand, and the form or manner of our thought, the main form being judgment, on the other hand. But one must still relate to what occurs in our mind the conjunctions, disjunctions, and other similar operations of our minds, and all the other movements of our souls, such as desires, commands, questions, etc.

It follows from this that men, having had need of signs in order to mark everything that occurs in their minds, also found it necessary to draw a most general distinction among words into those that signify the objects of thoughts and those that signify

the form and the manner or mode of our thoughts, although the latter often do not signify the manner alone, but only the manner in conjunction with the object, as we will show.

Words of the first kind are those which are called *nouns*, *articles*, *pronouns*, *participles*, *prepositions*, and *adverbs*. Those of the second kind are *verbs*, *conjunctions*, and *interjections*. These are all derived as a necessary consequence from the natural manner in which we express our thoughts, as we will show.

II

OF NOUNS, AND FIRST OF SUBSTANTIVES AND ADJECTIVES[1]

The objects of our thoughts are either things, like the earth, the sun, water, wood, what is ordinarily called *substance*, or else are the manner or modification of things, like being round, being red, being hard, being learned, what is called *accident*.

There is this difference between things or substances and the manner of things or accidents: substances exist by themselves, whereas accidents depend for their existence on substances.[2]

It is this which has engendered the principal difference among the words which signify the objects of thought. For those words which signify *substances* have been called *substantive nouns*,[3] and those which signify accidents, in marking the subjects in which these accidents inhere, have been called *adjectival nouns*.[4]

This then is the first origin of substantive and adjectival nouns. But the matter went beyond this consideration, and we find that it was not so much signification itself that was dwelt upon as the manner of signification. For since substance is that which exists by itself, people came to call all those words which exist by themselves in discourse without requiring another noun *substantive*

[1] This chapter is a clear example of the "deep-structural" analysis in which the authors are engaged. The distinctions drawn are conceptual rather than grammatical.

[2] The explicit acceptance of Aristotelian subject-predicate logic and substance-attribute metaphysics is clear in this passage. Cf. *Logic*, "Second Discourse", 26, where Arnauld asserts that "we acknowledge that nearly our whole treatment of the rules of logic is taken from [Aristotle's] *Analytics*".

[3] E.g. "earth" or "sun", *Logic*, 99.

[4] E.g. "good", "just", "round", *Logic*, 99.

nouns, even though they in fact signified accidents.[5] And on the contrary, those words which signified substances came to be called *adjectives* when, by their manner of signifying, they needed to be joined to other nouns in discourse.[6]

Now the reason that in certain instances a noun cannot exist by itself is that outside of its distinct signification, it also has a confused signification, which can be called the *connotation* of a thing, with which that which is marked by the distinct signification agrees.[7]

Thus the distinct signification of *red* is *redness* [*la rougeur*]. But *red* signifies redness by marking confusedly the subject of this redness, from whence it comes that *red* never exists by itself in discourse, because the word which signifies this subject must be either expressed or understood.[8]

Since this connotation forms the adjective, when it is removed from words which signify accidents, they are made into substantives, as from *colored*, *color*, from *red*, *redness*, from *hard*, *hardness*, from *prudent*, *prudence*, etc.[9]

[5] E.g. "wisdom", "whiteness", "color", *Logic*, 100.

[6] E.g. "human", "carnal", *Logic*, 100.

[7] The words "clear", "distinct", "confused", "obscure", are never adequately explained by the authors, and their meanings must be extrapolated from the contexts in which they appear. Some attempt is made to do this in the notes which follow. These notions were of course of great importance for all Cartesians. Descartes relies heavily upon them in the *Discourse on Method* and in the *Meditations*, but it is common knowledge that he gave no adequate account of them. For the best attempt to explicate these and related notions, see Leibniz' "Reflections on Knowledge, Truth and Ideas" (1684) in P.P. Wiener (ed.), *Leibniz Selections* (New York: Charles Scribner's Sons, 1951), 283. These ideas were further developed by the Leibnizean Christian Wolff in his *Logic*.

[8] The theory seems to be this: Adjectival nouns like "red" distinctly signify a certain quality, expressed as a substantive, like redness. The confused signification, or connotation, of such adjectival nouns is the reference they have to those objects in which the quality appears; in the above example, those things which have the property of redness. Thus "red" only signifies "redness" (its distinct signification) by way of modifying some subject — i.e. we always talk of something being red. It is for this reason, argue the authors, that "red" never appears alone in discourse, but must always be accompanied by the word designating the thing which is red, expressed or understood.

[9] The confused connotation is thus the feature which is constitutive of a word's being an adjective, since the confused connotation is the reference to

And on the contrary, when one adds to words which signify substances this confused connotation or signification of a thing to which these substances are connected, adjectives are created, as out of *man*, *manly*, or, in French, out of *homme* (man), *humain* (human, adjective).[10]

The Greeks and the Latins have an infinite number of these words, *ferreus* (iron, adjective), *aureus* (golden), *bovinus* (bovine), *vitulinus* (calf, adjective), etc.

But Hebrew, French, and the other vernacular languages have fewer of these words. For French conveys this notion by use of the *de* (of): *d'or* (of gold), *de fer* (of iron), *de bœuf* (of beef), etc.

If these adjectives formed of substantive nouns are stripped of their connotation, new substantives called *abstracts* or *derivatives* are created. Thus, having made *human* from *homo*, or *humain* from *homme* one can make *humanity* from *human*, or *humanité* from *humain*.[11]

But there is another class of nouns which are considered substantives although these nouns are in fact adjectives, as they signify an accidental form, and since they also mark a subject to which this form is suitable. Such are the names of the various professions of men, like *king*, *philosopher*, *painter*, *soldier*, etc. And what makes

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the things modified by the adjective, and thus to be an adjective, a word must connote something which is modified by it. Thus the adjectival function of "red" consists in our ability to fill in the blank in "a red ——" with the name of some object. Since nothing definite is indicated by the blank, the things which satisfy that schema are indicated only "confusedly".

[10] The addition of the confused connotation to words signifying substances creates an adjective, for it has the effect of indicating the subjects to which the quality or set of qualities or essence is attached.

[11] This argument is cryptic. If the adjective *humain* (human) is created out of the noun *homme* (man) by addition of the confused connotation, then it is difficult to see why stripping the confused connotation from *humain* results in the new substantive *humanité* (humanity) rather than in the original substantive *homme* (man). It is possible that the authors saw *man* and *humanity* as equivalent, but this seems unlikely. Alternatively, *man* may here designate the essence or substantial form and thus be an intensional notion, wile *humanity* may designate the class or totality of men and thus be an extensional notion, and if this is the case, it seems that the authors did not have a clear notion of this distinction here. Cf. below Part II, Chapter 10, n. 2.

these nouns pass for substantives is that they can only have man as a subject, at least in ordinary circumstances and according to the primary usage of nouns. It has not been necessary to join their substantive to them, because one can understand without any confusion that the connection cannot be made with any other substantive. And for this reason these words have had in usage what is peculiar to substantives, that is, to exist alone in discourse.

It is for this same reason that certain nouns or pronouns are said to be taken substantively, because they are connected to a substantive so general that it is understood easily and precisely as *triste lupus stabulis*[12] (the wolf is terrible to the flocks), supply by subaudition *negotium* (trouble); or *patria* (native home), supply by subaudition *terra* (land), or *Judea*, supply by subaudition *provincia* (province). Consult the *New Latin Method* for further discussion.[13]

I have said that adjectives have two significations, one distinct, which is that of the form, and the other confused, which is that of the subject. But it must not be concluded from this that they signify the form more directly than the subject, as if the more distinct signification were also the more direct. Because on the contrary, it is certain that they signify the subject directly, and as the grammarians say, *in recto*, although more confusedly, and that they only signify the form indirectly, what the grammarians call *in obliquo*, however more distinctly. Thus *white*, *candidus*, signifies directly that which has whiteness, *habens candorem*, but in a most confused manner, marking in particular no one thing which could have whiteness, and it signifies whiteness only indirectly, but in a manner as distinct as the word whiteness itself, *candor*.

[12] Vergil, *Eclogues*, 3, 80.
[13] *New Latin Method*, Bk. VI, 87.

III

OF PROPER NOUNS AND APPELLATIVES OR GENERAL NOUNS

We have two sorts of ideas. First of all, the ones which represent only a single thing to us like the idea that each person has of his father and of his mother, of a friend, of his horse, of his dog, of himself, etc.

The other sort is that which represents to us several similar things, to which the idea is equally suitable, as the idea that I have of man in general, of horse in general, etc.

Men needed different names for these two different sorts of ideas.

They have called those which are suitable to singular ideas *proper nouns*, like the name *Socrates*, which refers to a certain philosopher; or the name *Paris* which refers to a certain city.

They have called those nouns which signify common ideas *general nouns* or *appellatives*, like the word *man* which refers to all men in general, and similarly the words *lion*, *dog*, *horse*, etc.

This is not to say that it does not often happen that proper names fit several individuals, such as *Pierre*, *Jean*, etc.; but this is only accidental, because several individuals have taken the same name. And then it is necessary to add other names to it which will make it determinate and which will make it once again serve as a proper noun, as the name Louis, which fits several individuals, becomes proper to the King who rules today by saying *Louis the Fourteenth.* Often it is not even necessary to add anything, because the context of discourse makes it sufficiently clear of whom one is speaking.

IV

OF SINGULAR AND PLURAL NUMBERS

The common nouns which fit several things can be taken in diverse ways.

For, first, they can be applied to one of the things which they fit, or else all these things can be considered as a certain unity, which philosophers call *universal unity*.

Second, they [common nouns] can be applied to several things together, while still considering these things as several.

In order to distinguish these two manners of signifying, two *numbers* have been invented. The singular, *homo* (man), and the plural, *homines* (men).

And some languages, such as Greek, have even created a *dual*, when the nouns fit two things.

The Hebrews also have a dual but only when the words signify things that are double, either by nature, as *the eyes*, *the hands*, *the feet*, or by art, as *the grindstones* of a mill, *the scissors*, etc.

From this it can be seen that proper nouns do not at all of themselves have a plural, because by their nature they fit only one thing. And if they are sometimes put in the plural, as when one says *the Caesars*, *the Alexanders*, *the Platos*, it is done figuratively by including in the proper name all the persons who resemble them, as one would speak of kings as brave as Alexander, of philosophers as wise as Plato, etc. And there are even those who censure this manner of speaking, as not being sufficiently conformable to nature, although examples of it are found in all languages, so that it seems to have too much authority to be rejected outright. One should still be careful to use it moderately.

All adjectives on the contrary must have a *plural*, because it is in their nature always to contain a certain vague signification of a subject, which makes them able to fit several subjects, at least as far as the manner of signifying is concerned, although in fact they might only fit one.[1]

As far as substantives which are common and appellatives are concerned, it seems that by nature they ought all have a plural; nevertheless there are several of them which do not have any, either by simple custom or for some sort of reason. Thus the names of each metal, *gold*, *silver*, *iron*, do not have a plural in nearly all languages. The reason for this is, as I see it, that the great resemblance which obtains between the parts of metals results in our ordinarily considering each species of metal, not as a species which has under it several individuals, but only as a whole which has several parts.[2] This appears clearly in our language [French], in that in order to indicate an individual piece of metal, the partitive particle *de* in the sense of "some" is added as in *de l'or* (some gold), *de l'argent* (some silver), *du fer* (some iron). One does indeed say *irons* in the plural, but this is to signify chains, and not merely one piece of the metal called *iron*. The Latins also say *aera* (coppers), but this is to signify money, or musical instruments, and so on.

[1] For example, "omniscient", which fits only God.

[2] A similar point is made by some contemporary logicians. Cf. W. V. O. Quine, *Word and Object* (Cambridge, Mass.: M.I.T. Press, 1960), 91ff. for discussion of what he calls "mass terms".

V

OF GENDERS

Since adjectival nouns by their nature fit several things, in order to make speech less confused and to embellish it with a variety of endings, it was judged appropriate to invent for adjectives a diversity conforming to the substantives to which they would be applied.

Men, then, first considered themselves, and having noted among themselves an extremely considerable difference, which is that of the two sexes, they judged it appropriate to vary the same adjectival nouns, giving them different endings when they are applied to men and when they are applied to women, as in saying *bonus vir* (a good man), *bona mulier* (a good woman). And this was called *masculine and feminine gender.*

But it was necessary that this be carried still further. For since these same adjectives could be attributed to things other than just men and women, they had to be given one of the two endings that had been invented originally to designate men and women. From whence it happened that by analogy to men and women, the other substantive nouns were distinguished into *masculine* and *feminine.* At times this was done for some sort of reason, such as when the offices of men, *rex* (King), *judex* (judge), *philosophus* (philosopher), (which are only improperly substantives, as we have said)[1] are masculine, because *homo* (man) is understood; and when the offices of women are feminine, such as *mater* (mother), *uxor* (wife), *regina* (queen), etc. because *mulier* (woman) is understood.

[1] Cf. above p. 71.

At other times, genders have been determined by pure caprice and a habit without reason. This is why such determination varies according to different languages, and even in the very words which one language has borrowed from another; as *arbor* (tree) is feminine in Latin, and *arbre* (tree) is masculine in French; *dens* (tooth) is masculine in Latin, and *dent* (tooth) feminine in French.

On occasion even this has changed according to time even in the same language; *Alvus* (belly) was formerly masculine in Latin, according to Priscian,[2] and subsequently it has become feminine. *Navire* (ship) in French was once feminine, and it has since become masculine.

This variation of usage has caused the same words to be accorded one gender by some and the other gender by the rest, resulting in a doubtful status for it as *hic finis* (this end, masculine) or *haec finis* (this end, feminine) in Latin, or *comté* (county) and *duché* (duchy) in French.

But that which is called the common gender[3] is not as common as grammarians imagine, because it only properly belongs to a few names of animals which in Greek and Latin are joined to either masculine or feminine adjectives according to whether one wishes to signify the male or the female, as *bos* (ox, cow), *canis* (dog, bitch), or *sus* (hog, sow).

The other nouns which grammarians include under the name of common gender are properly speaking only adjectives which

[2] Priscian was the greatest grammarian of the later period of Latin grammatical scholarship (c. the second half of the fifth century A. D.). Priscian's grammar, the *Institutiones grammaticae*, was a basic instructional grammar through the Middle Ages and into the seventeenth century, and served as a basis for medieval linguistic philosophy. The reference in the text is to this work. Brekle (*Grammaire*) cites the reference as *Institutio Grammatica* (Olivier Senant, 1517), lib. V, fol. XIX.

[3] On the common gender, see the *New Latin Method*, Book I, 1-4, where it is asserted that "the common [gender] has two genders, by reason of the signification of the noun, which, as it includes the two sexes, is the cause of its being always put in the Masculine, when it is applied to man; and in the Feminine, when it applies to woman" (1-2). The examples cited are *Parens sanctus* (the holy Father) and *Parens sancta* (the holy Mother) (4).

are taken as substantives, because ordinarily they exist alone in discourse, and they do not have different endings when they are joined to different genders, as the following do: *victor* and *victrix* (victor; masculine, feminine), in French *victorieux* and *victorieuse*; *rex* and *regina* (king and queen), in French *roi* and *reine*; *pistor* and *pistrix* (baker; masculine, feminine), in French, *boulanger* and *boulangère*, etc.

It is seen from this that that which the grammarians call *epicene* is not at all a separate gender. *Vulpes*, although it signifies the male and the female fox, is actually feminine in Latin. And similarly, *aigle* (eagle) is actually feminine in French,[4] because the masculine or feminine gender of a word does not properly concern its signification, but merely says that grammatically it is such that it should be joined to the adjective in the masculine or feminine ending. Thus in Latin, *custodiae* (guards or prisoners), *vigiliae* (sentinels) etc. are actually feminine, although they signify men. This is what is common to all languages, as regards gender.

The Greeks and the Latins have invented a third gender in addition to the masculine and the feminine, which they have called *neuter*, which is neither one nor the other. This they did not deal with rationally, as they could have done, by attributing the neuter to the names of things which had no connection with either the masculine or feminine sex, but rather dealt with it capriciously, and only according to certain endings.

[4] In current usage established in the seventeenth and eighteenth centuries, *aigle* is given as masculine in most of its occurrences. Grevisse indicates that it is etymologically feminine, and it was seen by Vaugelas (see below, Part II Chap. VIII, n. 3) as "hermaphroditic", 190.

VI

OF CASES, AND OF PREPOSITIONS INASMUCH AS IT IS NECESSARY TO DISCUSS THEM IN ORDER TO UNDERSTAND SOME OF THE CASES

If one always considered things separately from one another, one would only have given to nouns the two modifications that we have just indicated, namely number for all sorts of nouns, and gender for adjectives. But because they are often considered in terms of the different relationships which they have with one another, one of the inventions which was made in order to mark these relationships was to give different endings to nouns, called *cases*, from the Latin *cadere* (to fall), these being, as it were, the different "falls" of the same word.

It is true that of all languages it is perhaps only Greek and Latin which properly have noun cases. Nevertheless because there are also few languages which do not have some sort of pronoun case, and because without it the connections of speech called *construction* would not be clearly intelligible, it is almost necessary to know what is meant by these cases in order to learn any language at all. That is why we will explain them one after another as clearly as we possibly can.

OF THE NOMINATIVE CASE

The simple position of the noun is called the *nominative*, which is not properly a case, but rather the matter from which cases are formed, by the different changes which are applied to this first ending of the noun. Its principle usage is that it is placed in discourse before all verbs, in order to be the subject of the proposi-

tion. For example, *Dominus regit me*[1] (the Lord leads me), *Deus exaudit me* (God hears me).[2]

OF THE VOCATIVE CASE

When one names the person to whom one is speaking or the thing to which one addresses himself, as if it were a person, this name thereby acquires a new relationship which has sometimes been marked by a new ending, which is called the *vocative*. Thus out of *Dominus* in the nominative has been created *Domine* in the vocative [in Latin], and out of *Antonius*, *Antoni*. But since this was not especially necessary for clarity and the nominative could have been employed for this usage, there ensues the following:

(1) That the ending which differs from the nominative ending never appears in the plural.
(2) That even in the singular it is only found in the second declension in Latin.
(3) That in Greek, where it is more common, it is often left out, and the nominative is used in lieu of the vocative, as can be seen in the Greek version of the *Psalms* where St. Paul cites these words in the Epistle to the Hebrews in order to prove the divinity of Jesus Christ, θρονός σοῦ ὁ θεὸς,[3] where it is clear that ὁ θεὸς is a nominative serving as a vocative; the meaning is not "God is your throne", but rather "Your throne, O God, will remain ..." etc.
(4) And finally that the nominatives are often joined with the vocatives, e.g. *Domine Deus meus*[4] (Lord my God); *nate mea vires, mea magna potentia solus*[5] (my son, my strength, my great

[1] Psalms 22.1.
[2] This sentence itself does not appear to be scriptural, but cf. Deuteronomy 9.19, Psalms 117.5, *Dominus exaudivit me* (The Lord has heard me); and Psalms 4.4, *Dominus exaudiet me* (The Lord will hear me).
[3] Epistle to the Hebrews 1.8.
[4] Psalms 7.1.
[5] Vergil, *Aeneid* 1.664.

power alone). On this subject, see the *New Latin Method*, "Remarks on Pronouns".[6]

In our language [French], and in the other vernacular languages, this case is expressed in the common nouns which have an article in the nominative by the deletion of this article. e.g. *Le Seigneur est mon espérance* (The Lord is my hope), *Seigneur, vous êtes mon espérance* (Lord, you are my hope).

OF THE GENITIVE CASE

The relationship of belonging in any manner at all between a thing and another thing has given rise to a new noun ending in those languages having cases, which is called the *genitive*; and which is diversified afterwards into several species according to what the relationships are, as for example:

Of the whole to the part: *caput hominis* (a man's head).

Of the part to the whole: *homo crassi capitis* (a thickheaded man).

Of the subject to the accident or to the attribute: *color rosae* (color of a rose), *misericordia Dei* (pity of God).

Of the accident to the subject: *puer optimae indolis* (a boy of the best character).

Of the efficient cause to the effect: *opus Dei* (work of God), *oratio Ciceronis* (speech of Cicero).

Of the effect to the cause: *creator mundi* (creator of the world).

Of the final cause to the effect: *potio soporis* (sleeping potion).

Of matter to what it composes: *vas auri* (vessel of gold).

Of the object to the acts of our soul: *cogitatio belli* (consideration of war), *contemptus mortis* (contempt of death).

Of the possessor to the thing that is possessed: *pecus Meliboei* (herd of Meliboea), *divitiae Croesi* (riches of Croesus).

Of the proper noun to the common noun, or of the individual to the species: *oppidum Lugduni* (town of London).

And as there are some contraries among these relationships,

[6] *New Latin Method*, Bk. VI, 90ff.

this sometimes causes equivocations. In the words *vulnus Achillis* (wound of Achilles), the genitive *Achillis* can signify either the *relationship of the subject*, which is then taken passively to mean the wound which Achilles received; or it can signify the *causal relationship* which then is taken actively to mean the wound which Achilles inflicted. Thus in this passage from St. Paul: *certus sum quiā neque mors, neque vita, ..., poterit nos separare ā charitate Dei in Christo Jesu, Domino nostro*[7] (I am certain that neither death nor life will be able to separate us from the love of God in Jesus Christ our Lord), the genitive *Dei* has been taken in two different senses by the interpreters. Some have given it in terms of the *relationship of the object*, and explained this passage as the love which the elect bear for God in Jesus Christ. Others have given it an interpretation in terms of the *relationship of the subject*, and explained it as the love which God bears for the elect in Jesus Christ.

Although Hebrew nouns are not declined by case, nevertheless the relationship expressed by the genitive causes a change in the nouns, but a change totally different from that of the Greek and Latin languages. For instead of changing the noun which is governed as occurs in these languages, in Hebrew the governing noun is changed. For example, דְּבַר שָׁקֶר *verbum falsitatis* (a word of falsity), the change is made not in שָׁקֶר *falsitas*, but in דְּבַר for דָּבָר *verbum*.[8]

A particle is used in all the vernacular languages to express the genitive, as *de* (of) is used in French, *Deus, Dieu* (God); *Dei, de Dieu* (of God).

What we have said about the genitive's serving to mark the relationship between the proper noun and the common noun, or what is really the same thing, between the individual and

[7] Epistle to the Romans 8.38.

[8] The difference between the two forms שָׁקֶר and שָׁקֶר cited in the text is a function of the fact that there must have been a separative accent after the ש in the context in which the phrase דְּבַר שָׁקֶר was found by the authors. Such an accent would cause the *seghol* (ֶ) in the basic form שָׁקֶר to be replaced by a *qamas* (ָ), yielding the form שָׁקָר.

the species, is much more common in French than in Latin. For in Latin the common noun and the proper noun are often put in the same case, what is called *apposition*: *urbs Roma* (the city Rome), *fluvius Sequana* (river Seine), *mons Parnassus* (Mount Parnassus). Whereas in French, the usual thing on such occasions is to put the proper noun in the genitive case, e.g. *la ville de Rome* (the city of Rome), *la rivière de Seine*, *le mont de Parnasse*.

OF THE DATIVE CASE

There is yet another relationship which is the connection of profit or loss between a thing and the things which are related to it. The languages which have cases have a word for this also, which they call the *dative*, and which extends to so many other usages as well, that it is virtually impossible to indicate them all in particular. For example, *commodare Socrati* (to lend to Socrates), *utilis reipublicae* (useful to the Republic), *perniciosus Ecclesiae* (pernicious to the Church), *promittere amico* (to promise to a friend), *visum est Platoni* (it seemed to Plato), *affinis regi* (related to the King), etc.

The vernacular languages mark this case by a particle, as the *à* is used in French [or as *to* is used in English] as can be seen from the above examples.

OF THE ACCUSATIVE CASE

Those verbs which signify actions which are transmitted beyond the agent, such as to beat, to break, to heal, to love, to hate, have subjects which receive these actions, or objects which these actions concern. For if one beats, one beats someone; if one loves, one loves something, etc. And thus these verbs require that they be followed by a noun which will be either the subject or the object of the action which the verbs signify.[9] It is this which has caused

[9] For a full discussion of the distinction implicit here, see below, Chapter XVIII and the notes thereto.

a new ending, called the *accusative*, to be given to nouns in languages which have cases. For example, *amo Deum* (I love God), *Caesar vicit Pompeium* (Caesar conquered Pompey).

We have nothing in the French language which distinguishes this case from the nominative. But since we almost always put words in their natural order, one can distinguish the nominative from the accusative, in that ordinarily the nominative is before the verb, and the accusative is after it. *Le roi aime la reine* (the King loves the Queen); *La reine aime le roi* (the Queen loves the King). *Le roi* is in the nominative case in the first example and in the accusative in the second, and the contrary holds true for *la reine*.

OF THE ABLATIVE CASE

In addition to these five cases, the Latins have a sixth, which was not invented to mark any single relationship but rather to be joined to some of the particles called *prepositions*. For since the first five cases have not sufficed to mark all the relationships that things have with one another, people have had recourse to another device in all languages. Small words called prepositions were invented to be placed before nouns, as for example the relation of a thing in which another is contained is expressed in Latin by *in* and in French by *dans* (in): *vinum est in dolio* (the wine is in the hogshead). Now in those languages which have cases, these prepositions are not joined to the primary form of the noun, which is the nominative case, but to some of the other cases. And in Latin, although there are some prepositions that are joined to the accusative, *amor erga Deum* (love towards God), a particular case called the *ablative* was nevertheless invented in order to be joined with several other prepositions from which it is inseparable as far as the meaning goes, whereas the accusative is often separated from the preposition, as when it follows an active verb or precedes an infinitive.

This case, properly speaking, is never found in the plural, where there is never a different ending from that of the dative.

But because it would have blurred the analogy to say, for example, that a preposition governs the ablative in the singular and the dative in the plural, it was considered preferable to say that the plural also has an ablative form, but one which is always the same as the dative.

It is for this same reason that it is also useful to give to Greek nouns an ablative form which is always the same as the dative, because this preserves a greater analogy between these two languages, which are ordinarily learned at the same time.

And finally in our language [French], every time that a noun is governed by any preposition at all such as in *il a été puni pour ses crimes* (he has been punished for his crimes), *il a été amené par violence* (he has been brought forth with violence), *il a passé par Rome* (he went through Rome), *il est sans crime* (he is without crime), *il est allé chez son rapporteur* (he went to his chairman), *il est mort devant son père* (he died before his father), we can say that it is in the ablative case, and this is very useful in explaining oneself effectively with regard to several difficulties concerning pronouns.

VII

OF ARTICLES

The indefinite signification of common nouns and appellatives, of which we have spoken above in Chapter IV, has not only induced their being classified into two sorts of number, the singular and the plural, in order to determine this signification. It has also occasioned the invention in nearly all languages of certain particles, called *articles*, which determine their signification in another way, as much in the singular as in the plural.

The Latins have no articles. This is what caused Julius Caesar Scaliger to conclude illegitimately in his book *On the Principles of the Latin Language*[1] that this particle was useless, although in fact it is very useful for clarifying discourse and avoiding several ambiguities.

The Greeks have one article: ὁ, ἡ, τὸ

Modern languages have two articles: one called the *definite article*, as *le* (*the*, masculine), *la* (*the*, feminine) in French, and the other called the *indefinite article*, *un* (*a*, masculine), *une* (*a*, feminine) in French.

These articles do not properly speaking have cases, any more than nouns do. But what makes the French article *le* seem to have them is that the genitive and the dative are always formed in the plural, and often in the singular, by a contraction of the particles *de* (of) and *à* (to), which are the signs of these two cases, with the

[1] Julius Caesar Scaliger (1484-1558), *De Causis Linguae Latinae* (1540). Scaliger's book was an important Renaissance theoretical Latin grammar. Scaliger is best known for his vicious response to Erasmus for the latter's attack on the age's excessive attachment to Ciceronian Latin.

plural *les* and the singular *le*. This is so because in the plural which is common to the two genders, the genitive is always *des* from a contraction of *de les*. Thus in the case of *les rois* (the kings), *des rois* (of the kings) is used for *de les rois*. In the dative, *aux* is used instead of *à les*, as in *aux rois* (to the kings) instead of *à les rois*. This occurs by including in the contraction the change of *l* into *u*, which is very common in French, as when out of *mal* (ache), *maux* (aches), is made, out of *altus* (high, Latin), *haut* (high, French), is made, and out of *alnus* (alder, Latin), *aune* (alder, French) is made.

The same contraction and the same change of *l* into *u* is utilized in the genitive singular and the dative singular, in the case of masculine nouns which begin with a consonant. Thus one says *du* instead of *de le*; *du roi* (of the king), instead of *de le roi*, and *au* instead of *à le*; *au roi* (to the king) instead of *à le roi*. In all other masculine nouns which begin with vowels, and generally in all feminine nouns, the article remains as it was in the nominative, and *de* is simply added for the genitive, and *à* for the dative. For example, *l'état* (the state), de l'état (of the state), *à l'état* (to the state); *la vertu* (the virtue), *de la vertu* (of the virtue), *à la vertu* (to the virtue).

As regards the other articles, *un* and *une*, which we have called indefinite articles, it is ordinarily believed that they have no plural. And it is true that there is none which is formed from them directly, since one never says *uns* and *unes*, as the Spanish do in *unos animales* (some animals), but I say that the article does have a plural form taken from another word, to wit: *des* before substantives, as in *des animaux* (some animals), or *de* when an adjective precedes the substantive, as in *de beaux lits* (some beautiful beds), etc. Or else, what is in effect the same thing, I say that the particle *des* or *de* often serves as the indefinite article in the plural, as *un* does in the singular.

What convinces me of this is that in all cases in which *un* is put in the singular (outside of the genitive, for reasons that we will develop in what follows), *des* must be put in the plural, or *de* before adjectives.

Nominative		UN *crime si horrible mérite la mort.* (A crime so horrible deserves death.) DES *crimes si horribles*, (or) DE *si horribles crimes méritent la mort.* (Crimes so horrible (or) such horrible crimes deserve death.)
Accusative	*Il a commis* (He committed)	UN *crime horrible.* (*a* horrible crime). DES *crimes horribles* (or) D'*horribles crimes.* (horrible crimes).
Ablative	*Il est puni* (He is punished)	*pour* UN *crime horrible.* (for *a* horrible crime). *pour* DES *crimes horribles* (or) *pour* D'*horribles crimes.* (for horrible crimes).
Dative	*il a eu recours* (He has had recourse)	À UN *crime horrible.* (*to a* horrible crime). À DES *crimes horribles* (or) À D'*horribles crimes.* (*to* horrible crimes).
Genitive	*Il est coupable* (He is guilty)	D'UN *crime horrible.* (*of a* horrible crime). DE *crimes horribles* (or) D'*horribles crimes.* (of horrible crimes).

Note that *à*, which is the dative particle, is added in order to form the dative of this article, both in the singular *à un*, and in the plural *à des*. Note too that one also adds *de*, which is the genitive particle, in order to form the genitive singular, to wit *d'un*. It is therefore clear that according to this analogy the genitive plural ought to be formed in the same way, by adding *de* to *des* or to *de*,

but this was not done for a reason which is the main source of the irregularities of language, that is, to avoid cacophony or bad pronunciation. For *de des*, and even more so, *de de* was very grating to the ear, which found abhorrent the sound of *Il est accusé de des crimes horribles* or *Il est accusé de de grands crimes*. And thus the saying of an ancient writer: *impetratum est ā ratione, ut peccare suavitatis causa liceret*[2] (reason permits one to make mistakes for the sake of a pleasing style).

This makes it clear that *des* is sometimes the genitive plural of the article *le*, as when one says, *Le Sauveur des hommes* (The Savior of men) instead of *de les hommes* (of the men), and sometimes the nominative or the accusative, or the ablative, or the dative plural of the article *un*, as we have just shown. One also sees that *de* is sometimes the simple mark of the genitive without an article, as when one says, *Ce sont des festins de roi* (These are feasts fit for a king; literally, these are feasts of a king), and sometimes it is either the genitive plural of the same article *un*, taking the place of *de des*, or else it is the other cases of the same article before adjectives, as we have shown.

We have said in general that the function of articles is the determination of the signification of common nouns, but it is difficult to indicate precisely in what consists this determination, because it is not uniform in all languages which have articles. Here is what we have noticed about it in French:

The common noun, such as *king*:

Without article:
- either it only has a very confused signification — *Il a fait un festin de roi.* (He has feasted like a king.) / *Ils ont fait des festins de rois.* (They feasted like kings.)
- or a signification determined by the subject of the proposition — *Louis XIV est roi.* (Louis XIV is king.) / *Louis XIV et Philippe IV sont rois.* (Louis XIV and Philip IV are kings.)

[2] Cicero, *Orator* 18.157.

With the article *le* it signifies	either the species in its full extent	*Le roi ne dépend point de ses sujets.* (A king does not depend upon his subjects.) *Les rois ne dépendent point de leurs sujets.* (Kings do not depend upon their subjects.)
	or one or several individuals determined by the circumstances of the speaker or of the discourse	*Le roi a fait la paix; c'est à dire le roi Louis XIV, à cause des circonstances du temps.* (The king has made peace; i. e. King Louis XIV, by reason of the circumstances of the time.) *Les Rois ont fondé les principales abbayes de France; c. les rois de France.* (The kings have founded the chief abbeys in France, i.e. the French kings.)

With the article	*un* in the singular	signifies	one	undetermined individuals	*Un roi détruira Constantinople.* (A king will destroy Constantinople.)
	des or *de* in the plural		or several		*Rome a été gouvernée par des rois (ou) par de grands rois.* (Rome has been governed by kings, (or) by great kings.)

We thereby see that the article should never be added to proper nouns, because, as the latter already signify a particular and

determinate thing, they do not need the determination of the article.

Nevertheless, as usage does not always accord with reason, sometimes in Greek, articles are found even with proper names of men, for example, ὁ φιλίππος (the Philip). And the Italians make common use of it, as *L'Ariosto*, *Il Tasso*, *L'Aristotele*. The French imitate this usage sometimes, but only in the case of purely Italian names by saying, for example, *l'Arioste*, *le Tasse*, whereas they do not say *l'Aristote*, *le Platon*. For French does not add articles to the proper names of men, save as a mark of contempt, or in speaking of inferior people, *le tel*, *la telle* (the such and such) or else when appellatives or common nouns have become proper names, as there are men called le Roi, le Maître, le Clerc. But in such cases the whole is taken as a single word, so that when these names are applied to women, the article *le* is not changed to the article *la*, but a woman signs her name *Marie le Roi*, *Marie le Maître*, etc.

We also do not append an article to the proper names of cities or villages like *Paris*, *Rome*, *Milan*, *Gentilly*, except in the case of some appellatives which have become proper names as for example *la Cappelle*, *le Plessis*, *le Castelet*.

Nor are articles ordinarily appended to the names of churches, which are named simply by the name of the Saint to whom they are dedicated, for example, *St. Peter*, *St. Paul*, *St. John*.

But the French do use the article with the proper names of kingdoms and provinces: *la France*, *l'Espagne*, *la Picardie*, etc. However, there are some names of countries with which one does not use an article, as *Cornvailles*, *Comminges*, *Roannez*.

French uses the article for the names of rivers, *la Seine*, *le Rhin*, and of mountains, *l'Olympe*, *le Parnasse*.

Finally it is necessary to note that the article is not proper to adjectives, because they must obtain their determination from substantives. If one sometimes sees articles adjoined to adjectives, as when one says, *the white*, *the red*, it is because one has made substantives of them, *the white* being the same thing as whiteness, or else because the substantive is understood, as when in speaking of wine, one were to say *I prefer the white*.

VIII

OF PRONOUNS

Since men have been compelled to speak often of the same things in the same discourse, and since it was bothersome to repeat the same nouns continually, they invented certain words to take the place of these nouns, and for this reason they named them *pronouns*.

First of all, they recognized that it was often inexpedient and in bad taste to name oneself, and thus they introduced the first person pronoun to take the place of the name of the speaker: *ego*, me, I.[1]

Similarly, in order to avoid having to name the person to whom one is speaking, they found it preferable to designate this person by a word which they called the second person pronoun: *tu*, thou or you.

And in order to avoid repeating the names of other persons or other things which are being discussed, they invented third person pronouns: *ille*, *illa*, *illud*, he, she, it, etc. And of these, some indicate the thing which is being talked about like a pointing finger, and for this reason are called demonstratives, as for example, *hic*, *iste*, this, that, etc.

There is also a pronoun which is called reciprocal [reflexive], that is to say, one which turns back on itself, such as *sui*, *sibi*, *se* in Latin, *se* in French, [himself in English]. *Pierre s'aime* (Peter loves himself), *Caton s'est tué* (Cato killed himself).

[1] Brunot cites this argument as one of the pronounced flaws of the *Grammar*. He asserts that "it is a puerile imagination which considers the invention of the first person pronoun as inspired by the desire not to name oneself" (translation ours), *Histoire de la langue française* Tome IV, première partie, 53.

These pronouns serve the same function as other nouns, and thus also have all of their properties, such as:

Number, singular and plural: I, we, thou, you (plural). But in French, one ordinarily uses the plural *vous* instead of the singular *tu* or *toi*, even though one is speaking to a single person: *Vous êtes un homme de promesse* (you are a man of your word).

Gender: *he*, *she*, but the first person pronoun is always common to both. So too is the second person pronoun, except in Hebrew and the languages which imitate it, where the masculine אַתָּה is distinguished from the feminine אַתְּ.[2]

Case: *ego*, *me*, I, me. We have already noted in passing that even languages which do not have noun cases often have pronoun cases.

This we can see in the French language, where the pronouns can be considered according to the three usages which we indicate by the following table:

Before verbs in the				In all other instances	
Nominative		Dative	Accusative	Ablative	Genitive, etc.
je nous	I we	me	me	moi	me
tu vous	thou you	te	thee	toi	thee
		se	himself herself itself oneself	soi	himself herself itself oneself
il elle ils elles	he she they they(fem.)	lui him her leur them	le him la her les them	lui him eux them	elle her elles them (fem.)

[2] The Hebrew is misspelled in the edition of 1676.

There are several remarks to be made concerning this table.

First, to shorten the table, I put the *nous* and the *vous* only one time, although they are used everywhere before verbs, after verbs, and in all cases. The reason there is no difficulty in ordinary language regarding the [first and] second person [plural] pronouns is that only [*nous* and] *vous* [are] used.

Second, what we have indicated as the dative and the accusative of the pronoun *il* placed before verbs is also placed after verbs when the verbs are imperative forms. For example, *vous lui dites* (you tell him), *dites-lui* (tell him!); or *vous leur dites* (you tell them), *dites-leur* (tell them!); or *vous le menez* (you lead him), *menez-le* (lead him!); *vous la conduisez* (you conduct her), *conduisez-la* (conduct her!). But *me*, *te*, *se*, are only put before the verb. For example, *vous me parlez* (you talk to me), *vous me menez* (you lead me). And thus when the verb is in the imperative, it is necessary to use *moi* instead of *me*. For example, *parlez-moi* (speak to me!), *menez-moi* (lead me!). It is this to which Mr. de Vaugelas[3] seems not to have attended, since, in inquiring after the reason why *menez l'y* (lead him there!) is said while *menez m'y* (lead me there!) is not, he found as his only reason that the latter is cacophonous; whereas it is clear that *moi* cannot take an apostrophe, since it would be necessary in order to say *menez m'y* that one could say *menez-me*, as one says *menez-l'y* in virtue of the fact that one can say *menez le*. But *menez-me* is not proper French, and consequently *menez m'y* also is not.

Third, when pronouns come before the verb or after the verb in the imperative, the particle *à* is never added to the dative, as in *vous me donnez* (you give me) or *donnez-moi* (give me) and not *donnez à moi* (give to me), unless the pronoun itself is repeated [for emphasis], where *même* would ordinarily be added, which

[3] Claude Favre de Vaugelas (1595-1650) was the author of the influential French grammar *Remarques sur la langue françoise* (1647) sanctioned by the Academy. Vaugelas argued for relying upon upper-class French as the standard of proper usage. For the passage referred to here see the remark "Y, avec les pronoms", in Jeanne Streicher's facsimile edition of the first edition of 1647 (Paris: Librairie E. Droz, 1934), 95. All subsequent references to Vaugelas cite the titles of the relevant remarks as well as the pages in this edition.

is added to pronouns only in the third form.[4] Thus, for example, *dites-le-moi à moi* (tell it to me; literally, tell me it to me); *je vous le donne à vous* (I give it to you; literally, I give you it to you); *il me le promet à moi-même* (he promises it to me; literally, he promises me it to me); *dites-leur à eux-mêmes* (tell it to them; literally, tell them it to themselves); *trompez-la elle-même* (deceive her; literally, deceive her herself);[5] *dites-lui à elle-même* (tell her; literally, tell her to herself).

Fourth, the pronoun *il*, in the nominative *il* or *elle*, and in the accusative *le* or *la*, are applied to all sorts of things, as opposed to the dative, the ablative, the genitive, and the pronouns *son* and *sa* which take the place of the genitive, which ought ordinarily be used only of persons.

Thus one says perfectly properly of a country house, *elle est belle* (she is beautiful), *je la rendrai belle* (I will make her beautiful); but it is improper to say *je lui ai ajouté un pavillon* (I have added a pavilion to her), *je ne puis vivre sans elle* (I cannot live without her) *c'est pour l'amour d'elle que je quitte souvent la ville* (it is for the love of her that I often leave the city), *sa situation me plaît* (her location pleases me). In order to speak properly one would have to say: *j'y ai ajouté un pavillon* (I have added a pavilion to it), *je ne puis vivre sans cela* or *sans le divertissement que j'y prends* (I cannot live without it or without the amusement that I get there), *elle est cause que je quitte souvent la ville* (it is the reason for which I often leave the city), *la situation m'en plaît* (its location pleases me).

I am well aware that this rule is open to exceptions. For first, words which signify a multitude of persons, such as *église* (church),[6] *peuple* (people), *compagnie* (company), are not subject to it.

[4] This entire passage is obscure. If by the "third form" is meant the imperative, the example of *il me le promet à moi-même* is ill-chosen, being in the indicative. Bailly, *Grammaire*, replaces "third form" with "third person", as does the edition of 1803 (Paris: chez Perlet). This reading does not clarify the passage, for the above example contains the first person pronoun.

[5] Since no *à* appears before *elle-même*, nor could so appear, the point of this example is unclear.

[6] I. e. "church" as a society, a collective noun comprising an indefinite number

Second, when one animates things and considers them as persons by a device called *prosopopoeia*,[7] one can employ terms which normally are suitable only to persons.

Third, non-material things such as will, virtue, truth, also allow the use of expressions normally applied to persons, and I do not believe that it would be improper speech to say, *l'amour de Dieu a ses mouvements, ses désirs, ses joies, aussi bien que l'amour du monde* [*ses*, literally his, not its] (The love of God has its movements, its desires, its joys, as well as the love of the world); *j'aime uniquement la verité*; *j'ai des ardeurs pour elle, que je ne puis exprimer* [*elle*, literally her, not it], (I love only truth; I have a passion for it which I cannot express).

Fourth, usage has authorized that one can use the pronoun *son* about things entirely proper to that of which one is speaking. Thus one says that *une rivière est sortie de son lit* [*son*, literally her, not its] (a river has overflowed its bed) or that *un cheval a rompu sa bride* (a horse has broken his bridle) or that *un cheval a mangé son avoine* (a horse has eaten his oats), because one considers oats to be nourishment which is totally proper to a horse. We also say *chaque chose suit l'instinct de sa nature* [*sa*, literally her, not its] (each thing follows its natural instinct) or *chaque chose doit être en son lieu* [*son*, literally her, not its] (each thing must be in its place), or *une maison est tombée d'elle-même* [*elle-même*, literally herself, not itself] (a house collapsed of itself) since nothing is more essential to a thing than that which it actually is. And this makes me believe that this rule[8] has no place in scientific discourse, where one only speaks of that which is essential to things. Thus one can say of a word, *sa signification principale est telle* [*sa*, literally his, not its] (its principal signification is such and such) and of a triangle, *son plus grand côté est celui qui soutient son plus grand angle* [*son*, literally his, not its] (its greatest side is the one which subtends its greatest angle).

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of individuals.

[7] The rhetorical term for personification from the Greek, *prosōpon* (person) and *poiein* (to make).

[8] I.e. the rule of using *son* and *sa* only of persons.

It may be that there are still some other difficulties pertaining to the rule under discussion, but I have not given it sufficient consideration to give an account of all that could be brought to bear against it. But at least it is certain that in order to speak properly, one ought ordinarily to pay attention to this rule, and that it is a mistake to neglect it, save in the cases of phrases which are authorized by usage, or for which one has a special reason for doing so. Mr. de Vaugelas nevertheless did not notice this, but did attend to another very similar rule concerning the *qui* (who), which he shows very clearly is only used of persons except for the nominative and accusative *que.*[9]

Until now we have explicated the principal and primitive pronouns, but there are others formed from these which are called *possessives*, of the same sort as the adjectives we have discussed which are formed from nouns signifying substances by adding to them a confused signification, as from *terre* (earth) is formed *terrestre* (earthly). Thus *meus* (my) distinctly signifies *me*, and confusedly signifies something which belongs to me and which is mine. For example, *meus liber* (my book), that is to say *the book of me*, as the Greeks ordinarily say, βιβλος μοῦ.

Among these pronouns in French there are those which are always conjoined to a noun without an article — *mon* (my), *ton* (thy), *son* (his) and the plural *nos* (our) and *vos* (your). And there are others which always appear with an article without a noun, such as *mien* (mine), *tien* (thine), *sien* (his); and the plurals, *nôtres* (ours) and *vôtres* (yours). And there are some pronouns which appear both ways — *notre* (our and ours) and *votre* (your and yours) in the singular and *leur* and *leurs* (their and theirs) in the plural. I have not given any examples of this, because it is too simple. I will only say that it is reason which rejected this old mode of speaking: *un mien ami* (literally, a mine friend), *un mien parent* (literally, a mine parent), because *mien* (mine) should only be used with the article *le* and without a noun: *C'est le mien* (it is mine); *ce sont les nôtres* (they are ours), etc.

9 Vaugelas, "*QUI, en certains cas, et comment il en faut user. Quoy*", 55-57.

IX

OF THE PRONOUN CALLED RELATIVE

There is yet another pronoun, which is called relative: *qui*, *quae*, *quod* (masculine, feminine, neuter) in Latin or *who*, *which*, *what*, *that*.

This relative pronoun has something in common with the other pronouns, as well as something unique to it.

What it has in common with other pronouns is that it takes the place of the noun, and this even more generally than all the other pronouns, since it is used for all persons. I *who* am Christian, you *who* are Christian, he *who* is king.

That which is unique to the relative pronoun can be considered in two ways:

The first is that it is always related to another noun or pronoun which is called the *antecedent*, as in *God who is holy*. *God* is the antecedent of the relative *who*. But sometimes this antecedent is understood and not expressed, especially in the Latin language, as has been shown in the *New Method* for Latin.[1]

The second thing which is unique to the relative pronoun and which to my knowledge has never before been noted by anyone is that the proposition into which it enters (and which may be called *subordinate*) can be part of the subject or of the predicate of another proposition which may be called the *main* or *principal* proposition.

This cannot be properly understood if one does not recall what

[1] *New Latin Method*, Book VI, Section II, Chapter IV, "Of the Nature of the Relative"; Book V, "The Rules of Syntax", Rule 2, "Of the Relative and Antecedent".

we said at the beginning of this treatise, namely that in every proposition there is a subject, which is that of which something is affirmed, and a predicate, which is what is affirmed of something. But these two terms can either be simple, as when I say *God is good*; or complex, as when I say *an able magistrate is a man useful to the republic.* For that of which I affirm is not only *a magistrate*, but *an able magistrate*; and that which I affirm is not merely that he is *a man*, but rather that he is *a man useful to the republic.* On this subject, the reader may consult what has been said in the *Logic or the Art of Thinking* about complex propositions, Part 2, chapters 3, 4, 5, and 6.[2]

This union of several terms in the subject and in the predicate is such that it sometimes does not prevent the proposition from being simple, containing within itself only one judgment or one affirmation, as when I say *the valor of Achilles was the cause of the capture of Troy.* This is what always happens when, of the two substantives which enter into the subject or the predicate of the proposition, one is governed by the other.

But other times also, these kinds of propositions, in which the subject or the predicate is composed of several terms, contain, at least in our mind, several judgments, of which one can make as many propositions. Thus, for example, when I say, *Invisible God created the visible world*, three judgments pass through my mind which are included in this proposition. For I judge:

(1) that *God is invisible*;
(2) that *He created the world*;
(3) that *the world is visible*;

and of these three propositions, the second is the principal and essential one of the original proposition. But the first and the third constituent propositions are only subordinate, and comprise only part of the principal proposition — the first composing the subject

[2] *Logic*, Part II, Judgment, Chapter 3, "The nature of a proposition and the four kinds of propositions"; Chapter 4, "Relations among propositions which differ in quantity or quality"; Chapter 5, "Simple, compound, and complex propositions"; Chapter 6, "The nature of relative clauses". These chapters augment the account given in the *Grammar.*

of the principal proposition, and the third composing its predicate.[3]

Now these subordinate propositions are often in our mind, without being expressed in words, as in the example cited. But sometimes they are also expressly designated, and it is to this end that the relative pronoun contributes, as when I reduce the above example to these terms: *God WHO is invisible created the world WHICH is visible.*

Here then is what we have said is unique to the relative pronoun, namely that the proposition into which it enters could be part of the subject or predicate of another proposition.

Concerning the above it is necessary to remark that (1) when two nouns are joined together, and one of them is not governed by but rather accords with the other, either by being in apposition, as in *urbs Roma* (the city Rome), or as an adjective, as in *Deus sanctus* (holy God), especially if this adjective is a participle as in *canis currens* (a running dog), all these modes of speech include the relative pronoun in their meaning, and may be resolved by using the relative pronoun as follows: *urbs quae dicitur Roma* (the city which is called Rome), *Deus qui est sanctus* (God who is holy), *canis qui currit* (the dog who runs), and it is left to the ingenuity of languages to make use of one or the other of these modes of speech. And thus we see that in Latin the participle is ordinarily employed, as in *video canem currentem* (I see a running dog), and in French the relative is used: *je vois un chien qui court* (I see a dog who runs).

(2) I have said that the relative proposition can be *part* of the subject or of the predicate of another proposition which may be called the principal proposition, for it never comprises either the

[3] This passage has been singled out by Chomsky as an exemplar in his discussions of the notion of deep structural analysis which can be found in the *Grammar*. See Noam Chomsky, *Current Issues in Linguistic Theory* (The Hague: Mouton and Company, 1964), 15-16; *Cartesian Linguistics* (New York: Harper and Row, 1966), 33ff, where the account developed in the *Grammar* is discussed in relation to its further development in the *Logic*; *Language and Mind* (New York: Harcourt, Brace and World, 1968), 14-15; "Persistent Topics in Linguistic Theory", *Diogenes* 51 (Fall 1965), 15ff.

entire subject or the entire predicate, but it is necessary to add to it the word which the relative replaces in order to make the subject complete, and similarly several other words must be added to it in order to make the predicate complete. For example, consider my saying *God who is invisible is the creator of the world which is visible. Who is invisible* is not the entire subject of this proposition, but it is necessary to adjoin *God* to it. Similarly *which is visible* is not the entire predicate, but it is necessary to add to it *the creator of the world.*

(3) The relative pronoun can be either the subject or part of the predicate of the subordinate proposition. For in order to be a subject, it is necessary that it be in the nominative: *qui creavit mundum* (who created the world), *qui sanctus est* (who is holy).

But when it is in an oblique case such as the genitive, dative, or accusative, then it cannot form the entire predicate of this subordinate proposition, but only a part: *Deus quem amo* (God whom I love). The subject of the proposition is *ego* (I), and the verb makes the connection and a part of the predicate, of which *quem* (whom) makes another part, as if it were *ego amo quem* (I love whom) or *ego sum amans quem* (I am loving whom), and similarly: *cujus caelum sedes est* (of whom heaven is the throne). This is exactly as if one said, *caelum est sedes cujus* (heaven is the throne of whom).

Nevertheless, even on these occasions, the relative pronoun is always placed at the beginning of the proposition (although, according to the meaning it ought only be at the end), unless it is governed by a preposition, for the preposition comes first, at least ordinarily. For example, *Deus ā quo mundus est conditus* (God by whom the world was created).

SEQUEL TO THIS CHAPTER

VARIOUS GRAMMATICAL DIFFICULTIES WHICH CAN BE EXPLAINED BY THIS PRINCIPLE.[4]

That which we have said of the two uses of the relative, one as a pronoun, and the other as a mark of the union of one proposition

[4] The first edition (1660) did not have this heading.

with another, serves to explain several things for which the grammarians have difficulty giving reasons.

I will reduce them here to three classes, and will give some examples of each.

The first is where the relative is clearly used as a conjunction and a demonstrative pronoun.

The second is where it only takes the place of a conjunction.

And the third is where it takes the place of a demonstrative, and no longer retains anything of the conjunction.

The relative takes the place of the conjunction and of the demonstrative when, for example, Livy says of Junius Brutus: *is quum primores civitatis, in quibus fratrem suum ab avunculo interfectum audisset*[5] (he, when the leading men of the state, amongst whom he heard that his brother had been killed by his [maternal] uncle). For it is clear that *in quibus* (amongst whom) takes the place of *et in his* (and amongst these [men]), so that the phrase is clear and intelligible, if it is thus reduced: *quum primores civitatis, et in his fratrem suum interfectum audisset* (when the leading men of the state ..., and among these men he heard that his brother had been killed), whereas without this principle, this sentence virtually cannot be analyzed.

But the relative sometimes loses its demonstrative force, and only plays the role of a conjunction.

This we can consider in two particular occasions.

The first is a very common manner of speaking in the Hebrew language, which is the case where the relative is not the subject of the proposition into which it enters, but only part of the predicate, as when one says *pulvis quem projicit ventus* (dust which the wing flings about). The Hebrews only allow the relative the second usage, to mark the union of the proposition with another. And as for the other usage, which is to take the place of the noun, they express it by using the demonstrative pronoun, as if there were no relative at all, so that they say *quem projicit eum ventus* (which the wind flings it about).[6] And these sorts of expressions have

[5] Livy, Book I, Chapter 56.

[6] The Hebrew relative pronoun is אֲשֶׁר or שֶׁ־. The point made in the text is

passed into the New Testament, where St. Peter, making reference to a passage of Isaiah, says of Jesus Christ: ὀυ τῷ μώλοπι αὐτοῦ ἰαθητε, *cujus livore ejus sanati estis*[7] (by whose welts of Him you are healed). The Grammarians, not having distinguished these two uses of the relative, were unable to give any reason for this manner of speaking, and have been reduced to saying that it was a pleonasm, i.e. a useless superfluity.

But[8] this is not without example, even in the best Latin authors, although the Grammarians have not understood it. For it is thus that Livy said, for example: *Marcus Flavius, tribunis plebis, tulit ad populum, ut in Tusculanos animadverteretur, quorum eorum ope ac consilio Veliterni populo romano bellum fecissent*[9] (Marcus Flavius, tribune of the plebs, proposed to the people that action should be brought against the Tusculans, with whose/their aid and advice [he alleged] the Veliternians had made war on the Roman people). And it is so manifest that *quorum* (whose) functions here only in the role of a conjunction, that several people have believed that it must read *quod eorum ope* (because with their aid); but it is the former version which can be found in the best editions, and in the oldest manuscripts. It is also in this way that Plautus spoke in his *Trinummus*, where he said:

> *Inter eosne homines condalium te redipisci postulas, Quorum eorum unus surripuit currenti cursori solum*?[10] (Are you asking to get back the ring from those men, of whom one of them stole the shoe-sole of your runner while he was running?)

where *quorum* (of whom) serves the same function that *cum eorum unus surripuerit* (when one of them stole) would have.

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illustrated by the following passage from Isaiah, 37.4: "שְׁלָחוֹ מֶלֶךְ אַשּׁוּר אֲשֶׁר" (literally, whom the king of Assyria had him sent). The אֲשֶׁר serves only as a conjunction, and the pronominal force is carried by the וֹ suffix in שְׁלָחוֹ. See Gesenius, 466ff.

7 I Peter, 2.24.

8 The entire paragraph does not appear in the first edition of 1660.

9 Livy, Book VIII, Chapter 37.

10 Plautus, *Trinummus*, Act IV, 1022-1023.

The second thing that can be explained by this principle is the celebrated dispute among the Grammarians, concerning the nature of *quōd* in Latin after a verb, as when Cicero says: *non tibi objicio quōd hominem spoliasti*[11] (I am not criticizing you that [i.e. because] you robbed the man). This is even more common among authors writing in Low Latin, who almost always use *quōd* where the same thing could be said more correctly by use of the infinitive: *dico quōd tellus est rotunda* (I say that the earth is round) for *dico tellurem esse rotundam* (I say the earth is [literally, to be] round). Some pretend that this *quōd* is an adverb or a conjunction, and others that it is the neuter of the relative *qui, quae, quōd.*

For myself, I believe that it is the relative which is always connected to an antecedent (as we have already said), but which is shorn of its pronominal usage, containing nothing in its signification which comprised part of the subject or of the predicate of the subordinate proposition, and retaining only its second usage of uniting the proposition wherein it is found, to another, as we have just said of the Hebraism *quem projicit eum ventus* (which the wind flings it about). For in this passage from Cicero, *non tibi objicio quōd hominem spoliasti* (I am not criticizing you that [i.e. because] you robbed the man) these latter words, *hominem spoliasti* (you robbed the man) comprise a complete proposition, where the *quōd* (that, i.e. because) which precedes them adds nothing, and does not substitute for any noun. All that it does is to make the proposition to which it is joined only a part of the entire proposition *non tibi objicio quōd hominem spoliasti* (I am not criticizing you that [i.e. because] you robbed the man), whereas without the *quōd* it would exist by itself, and would all alone constitute a proposition.

This again is the explanation we could give in speaking of the infinitives of verbs, where we will also make manifest that it is the manner of analyzing the *que* (that) of French (which derives from the Latin *quōd*) as when one says, *je suppose que vous serez sage* (I suppose that you will be wise), *je vous dis que vous avez tort*

[11] Cicero, *Actionis Secundae in C. Verrem*, 4.37.

(I tell you that you are wrong). For the *que* (that) there is so far removed from the nature of a pronoun that it only serves the function of a connective to show that these propositions, *vous serez sage* (you will be wise) and *vous avez tort* (you are wrong), only make up part of the complete propositions cited above.

We have thus indicated two occasions where the relative, losing its pronominal function, retains only the function of uniting two propositions. But we can, on the contrary, indicate two other cases where the relative loses its connective function and only retains its pronominal function. The first is in a mode of speech where the Latins often make use of the relative, giving it little more than the force of a demonstrative pronoun, and leaving it very little of its other usage, which is that of connecting the proposition in which it is used to another proposition. This is the reason that they begin so many periods with the relative, which can only be translated into vernacular languages by use of the demonstrative pronoun, because since the force of the relative as a connective is virtually lost in the original Latin, one would find it strange to so render it in the translation. For example, Pliny begins his panegyric thus: *Benē ac sapienter, P. C. [patres conscripti], majores instituerunt, ut rerum agendarum, itā dicendi initium ā precationibus capere, quōd nihil rite, nihilque providenter homines sine Deorum immortalium ope, concilio, honore, auspicarentur. QUI mos, cui potiūs quām Consuli, aut quandō magis usurpandus colendusque est?*[12] (Senators, our ancestors established the good and sensible practice of beginning both their projects and their talk with prayers, on the grounds that men began nothing in a proper and prudent manner without acknowledgement of the aid and counsel of the immortal gods. By whom is THIS [literally, WHICH] custom to be practiced and maintained rather than by the Consul, and at what time more [than now]?).

It is certain that this *qui* begins a new period rather than joins the latter part to what preceded it. That is why it is preceded by a full stop. And that is why, in translating this, one would never

[12] Pliny the Younger, *Panegyricus* (1-3).

render it *which custom*, but rather *this custom*, beginning the second period in this manner: *by whom is this custom to be practiced rather than by a consul*? etc.

Cicero is replete with such examples, as in Orat. V in Verrem: *Itaque alii cives Romani, ne cognoscerentur, capitibus obvolutis ā carcere ad palum, atque ad necem rapiebantur: alii, quum ā multis civibus Romanis recognoscerentur, ab omnibus defenderentur, securi feriebantur. QUORUM ego de acerbissima morte, crudelissimoque cruciatu dicam, quum eum locum tractare coepero.*[13] (Therefore some Roman citizens, heads covered to avoid recognition, were snatched away from prison to death on the stake [or cross]. Others were beheaded, since many Roman citizens recognized them and all were defending them. I shall speak about THEIR [literally WHOSE] very painful death and their most cruel torture when I begin to deal with that point.)

This *quorum* would be translated as if there were in the sentence *de illorum morte* (about their death).[14]

The other case, where the relative retains virtually nothing except its pronominal usage, is in the ὅτι of the Greeks, whose nature had not been clearly noted by anyone before the appearance of the *Greek Method*. For although this particle has a close relation to the Latin *quōd*, and was taken from the relative pronoun of the Greek language, as the *quōd* was taken from the Latin relative, there is nevertheless often a notable difference between the nature of *quōd* on the one hand and ὅτι on the other. The difference is that unlike the Latin particle, which is only the relative shorn of its pronominal usage and retaining only the connective function, the Greek particle, on the contrary, is most often shorn of its connective function, retaining only its pronominal usage. Concerning this one should consult the *New Latin Method* in the chapter "Remarks concerning Adverbs" note 4, as well as the *New Greek Method*, Book VIII, Chapter 11.[15] Thus, for example, when in the

[13] Cicero, *Actionis Secundae in C. Verrem*, 5.72.

[14] The remainder of this chapter is not found in the 1660 edition.

[15] *New Greek Method*, Book VIII, Chapter 11, "Remarks on the indeclinable particles, and first of ὅτι", 403ff. *New Latin Method*, Book VI, Section V, Chap-

book of *Revelations*, Chapter 3, Jesus Christ is reproaching a Bishop for being too satisfied with himself, he says Λέγεὶς ὅτι πλούσιός εἰμὶ (you say that I am rich), *dicis quōd dives sum* (you say that I am rich),[16] that is not to say *quōd ego qui ad te loquor dives sum* (that I who speak to you am rich) but *dicis hoc* (you say this), namely, *dives sum* (I am rich); so that there are two orations or separate propositions, without the second being part of the first, so that the ὅτι functions there neither as a relative nor as a connective. This seems to have been taken from the custom of the Hebrews, as we shall see shortly in Chapter XVII, and it is very necessary to note this in order to parse a number of difficult propositions in the Greek language.

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ter I, "Remarks on the Indeclinable Particles"; Remark III, "That *Quod* is never anything else but a Pronoun Relative", 146-147; Remark IV, "Whether *Quod* may be put like the Greek ὅτι, after the Verbs", 148.

16 Revelations, 3.17.

X

EXAMINATION OF A RULE OF THE FRENCH LANGUAGE; NAMELY THAT ONE OUGHT NOT PUT THE RELATIVE AFTER A NOUN WITHOUT AN ARTICLE

What has led me to undertake to examine this rule is that it gives me the opportunity to speak in passing of many things which are very important for the rationalization of language, but which would oblige me to take too much time if I wanted to treat them individually.

Mr. de Vaugelas is the first to have enunciated this rule, as well as several other very judicious ones, with which his remarks are filled, namely that after a noun without an article one must not put the *qui* (who, which).[1] Thus one says properly, *il a été traité avec violence* (he has been treated with violence), but if I wish to indicate that this violence has been thoroughly inhuman, I can do this only by adding an article: *il a été traité avec une violence qui a été tout-à-fait inhumaine* (he has been treated with a violence which was totally inhuman).

This appears at first very reasonable, until one becomes aware that there are several modes of speech in French which do not conform to this rule, as for example among others the following: *il agit en politique qui sait gouverner* (he acts like [a] politician who knows how to govern), *il est coupable de crimes qui méritent*

[1] Vaugelas, *Remarques*, "*L'article indefini ne reçoit jamais après soy le pronom relatif, ou, le pronom relatif ne se rapporte jamais au nom qui n'a que l'article indefini*", 385; "*Le pronom relatif ne peut se rapporter à un nom qui n'a point d'articles*", 387-389. Chomsky argues in *Language and Mind* that the so-called rule of Vaugelas, which involves the relation between indefinite articles and relative clauses in French "for a hundred and fifty years ... was the central issue debated in the controversy over the possibility of developing a 'rational grammar' ...", 13.

châtiment (he is guilty of crimes which deserve punishment), *il n'y a homme qui sache cela* (there is no man who knows that), *Seigneur, qui voyez ma misère, assistez-moi* (Lord, who sees my misery, help me), *une sorte de bois qui est fort dur* (a sort of wood which is very hard). In view of such examples I wondered whether this rule could not be put in such terms as to render it more general, and to make manifest that these modes of speech and other similar ones, which appear to be contrary to the rule, are not in fact contrary. Here therefore is the rule as I have conceived it:

In current French usage, a *qui* ought not be put after a common noun, if it is not determined by an article or by some other thing which determines it no less than an article would.

In order to fully understand this, it is necessary to recall that one can distinguish two things in the common noun: the signification, which is fixed (for if it sometimes varies, by equivocation or by metaphor, this is accidental), and the extension of this signification, which is subject to variation according to how the noun is interpreted, either as referring to a whole species, or to a distinct or an indistinct part.[2]

It is only with regard to this extension that we say that a common noun is *indeterminate* when there is nothing which indicates whether it ought to be taken generally or particularly; and being taken particularly, whether it stands for a distinct or indistinct

[2] This distinction, which parallels the modern distinction between meaning and reference, is more fully developed in the *Logic*, where it is referred to as the distinction between *comprehension* and *extension* and is explicated as follows:

> The comprehension of an idea is the constituent parts which make up the idea. For example, the idea of a triangle is made up of the idea of having three sides, the idea of having three angles, and the idea of having angles whose sum is equal to two right angles, and so on.
>
> The extension of an idea is the objects to which the word expressing the idea can be applied. The objects which belong to the extension of an idea are called the inferiors of that idea, which with respect to them is called the superior. Thus, the general idea of a triangle has in its extension triangles of all kinds whatsoever. (*Logic*, 51).

The passage in the *Logic* goes on to indicate that the extension may be applied to all of the inferiors or only to some without changing the meaning, (52).

particular. And, on the contrary, we say that a noun is *determined* when there is something which indicates its determination. This makes manifest that by *determined* we do not mean *restricted*, since according to what we have just said, a common noun ought to be considered determined when there is something which indicates that it ought to be taken in its full extension, as in the following proposition: *toute homme est raisonnable* (every man is rational).[3]

It is upon this that our rule is founded. For one can well make use of a common noun, while only considering its signification as in the example that I proposed, *il a été traité avec violence* (he was treated with violence), where it is not necessary that I determine it [i.e. the common noun]; but if one wishes to say something particular about it, one does this by adding a *qui* (which). It is very reasonable that in those languages which have articles for determining the extension of common nouns, one uses them then, so that one can better know to what this *qui* (which) ought to be related, whether it is to all which can be signified by the common noun, or only to a distinct or indistinct part.

But one also sees from all this that, as the article is necessary on these occasions only in order to determine the common noun, if it is determined in some other way, one can adjoin a *qui* to it as if there were an article. And this is what makes manifest the need for expressing this rule as we have done, in order to make it general. This also shows that almost all the modes of speech which seem contrary to this are in fact conformable to it, because the noun which is without an article is determined by some other thing. But when I say "by some other thing", I do not include in it the *qui* which is joined to the noun. For if one did include it,

[3] Note that in the *Grammar*, "determined" means either that the scope of the noun is restricted to some subset of the extension, or else that the noun is clearly referring to the entire class in its full extension. In the *Logic*, on the other hand, "determined" is used as a synonym for restricted. Thus in the *Logic*, it is asserted that when an addition made to a term "restricts the extension ... the addition is called a determination" (118). Or again, "a complex expression is a *determination* if the extension expressed by the complex term is less than the extension of the idea, expressed by the principal word" (60).

one could never act contrary to this rule, since one could always say that one only uses a *qui* after a noun without an article in a mode of speech determined by the *qui* itself.

Thus, in order to give an account of nearly every objection to this rule, one must merely consider the different ways in which a noun without an article can be determined.

(1) It is certain that proper nouns which only signify a single thing are determined by themselves, and that is why I have spoken of the rule in question only with regard to common nouns, it being indubitable that it is perfectly proper to say, *il imite Virgile, qui est le premier des poètes* (he imitates Virgil, who is the greatest of poets), *toute ma confiance est en Jésus-Christ, qui m'a racheté* (all my trust is in Jesus Christ, who has redeemed me).

(2) Nouns in the vocative are also determined by the very nature of the vocative case, so that an article is not required to adjoin a *qui* to such a noun since it is indeed the supression of the article which renders a noun vocative and which distinguishes it from the nominative. It is therefore not at all contrary to our rule to say: *Ciel, qui connaissez mes maux* (Heaven, who know my afflictions); *soleil, qui voyez toutes choses* (sun, who see all things).

(3) *Ce* (this), *quelque* (some), *plusieurs* (several), the names of the numbers, such as *two* and *three*, etc. *tout* (all), *nul* (none), *aucun* (any), etc. determine as much as do the articles. This is too obvious to dwell upon.

(4) In negative propositions, the terms on which the negation falls are determined to be taken generally by the negation itself, whose nature is to take everything away. This is the reason why one says affirmatively with the article: *il a de l'argent* (he has money), *du cœur* (courage), *de la charité* (charity), *de l'ambition* (ambition), and negatively without the article: *il n'a point d'argent* (he has no money), *de cœur* (courage), *de charité* (charity), *d'ambition* (ambition). And it is this which also shows that the following modes of speech are not contrary to our rule: *il n'y a point d'injustice qu'il ne commette* (there is no injustice which he does not commit); *il n'y a homme qui sache cela* (there is no man who knows that). Nor does even the following violate the rule: *est-il ville dans le*

royaume qui soit plus obéissante? (is there a city in the kingdom which is more obedient?), for an affirmative with an interrogative reduces in meaning to a negation: *il n'y a point de ville qui soit plus obéissante* (there is no city which is more obedient).

(5) It is an absolutely true rule of logic that in affirmative propositions, the subject draws the predicate to itself, that is, determines it. And this is the reason why the following argument is false: Man is an animal, a monkey is an animal; therefore a monkey is a man; i. e. since "animal" is the predicate of the first two propositions, the two different subjects determine two different sorts of animal.[4] This is why it is not at all contrary to our rule to say *je suis homme qui parle franchement* (I am a man who speaks frankly), for *homme* (man) is determined by *je* (I). This is indeed so true that the verb which follows the *qui* is better put in the first person than in the third. For example, *je suis homme qui ai bien vu des choses* (I am a man who have seen many things) rather than *qui a bien vu des choses* (who has seen many things).

(6) The words *sort*, *species*, *genus*, and similar words determine the ones that follow them, which, for this reason, ought not have an article. For example, we say *une sorte de fruit* (a sort of fruit) and not *d'un fruit* (of a fruit). This is why it is correct to say *une sorte de fruit qui est mûr en hiver* (a sort of fruit which ripens in winter); *une espèce de bois qui est fort dur* (a species of wood which is very hard).

(7) The particle *en* (literally, in) in the sense of the Latin *ut* as in *vivit ut rex*, *il vit en roi* (he lives like a [literally, in] king), includes in itself the article equivalent to *comme un roi* (like a king) or *en la manière d'un roi* (in the manner of a king). This is why it is not contrary to our rule to say: *il agit en roi qui sait régner* (he acts like a [in] king who knows how to rule), or *il parle en homme qui sait faire ses affaires* (he speaks like a [in] man who knows how to conduct his affairs). In the former example, *comme un roi* (like a king) is what is meant; in the latter *comme un homme* (like a man).

(8) *De* alone with a plural often takes the place of *des* which is

[4] Cf. *Logic*, 168-169.

the plural of the article *un* (a), as we have shown in the chapter dealing with the article. And thus the following modes of speech are very good and are not contrary to our rule: *Il est accablé de maux qui lui font perdre patience* (he is overwhelmed by troubles which make him lose patience); *il est chargé de dettes qui vont au-delà de son bien* (he is charged with debts which exceed his belongings).

(9) The following modes of speech, good or bad: *c'est grêle qui tombe* (it is hail which falls), *ce sont gens habiles qui m'ont dit cela* (it is able people who told me that), are not at all contrary to our rule, because the *qui* is not related to the noun which is without an article, but to the *ce* (it) which serves for all genders and numbers. For the noun without the article, *grêle* (hail), *gens habiles* (able people), is what I affirm and consequently the predicate and the *qui* make up part of the subject of which I affirm. For I affirm of *ce qui tombe* (it which falls) that *c'est de la grêle* (it is hail); of *ceux qui m'ont dit cela* (those who told me that) that *ce sont des gens habiles* (they are able people). And since the *qui* is not at all related to the noun without the article, it has nothing to do with our rule.

If there are other modes of speech which seem contrary to our rule, and which one can not rationalize by means of the preceding observations, these, I believe, can only be vestiges of an older style, where articles were almost always omitted. It is a maxim that those who work on a living language must always keep sight of the fact that those modes of speech which are authorized by a general and uncontested usage ought to pass as legitimate, even if they are contrary to the rules and internal analogy of the language.[5] On the other hand, one ought not adduce them in order to cast doubt upon the rules and disturb the analogy of languages, nor should they be used to authorize as consequences of themselves other modes of speech which usage has not authorized. Otherwise,

[5] Ferdinand de Saussure, in his *Course in General Linguistics* (New York: McGraw-Hill, 1959), gives a succinct definition of analogy: "Analogy supposes a model and its regular imitation. An analogical form is a form made on the model of one or more other forms in accordance with a general rule" (161).

he who will linger only on these aberrations of usage, without observing the foregoing maxim, will cause a language to remain forever uncertain, and lacking any principles, it will never be able to be determined.

XI

OF PREPOSITIONS[1]

We have said above in Chapter VI that cases and prepositions have been invented for the same purpose, namely, to indicate the relationship which things have with one another.

It is virtually the same relationships in all languages which are marked by prepositions; this is why I rest content with giving an account here of the principal ones of these which are marked by the prepositions of the French language, without obligating myself to give an exact examination of them, such as would be necessary in a particular grammar.[2]

I thus believe that the principal relationships can be reduced to the following:

[1] In the first edition of 1660, this chapter is numbered X, and this misnumbering continues until the end of the book.

[2] I.e. as opposed to a general grammar. Here French is being used ostensibly as an illustration of general principles.

of place, location, order	*dans*	*Il est dans Paris.*
	(in)	(He is in Paris.)
	en	*Il est en Italie.*
	(in)	(He is in Italy.)
	à	*Il est à Rome.*
	(at)	(He is at Rome.)
	hors	*Cette maison est hors la ville.*
	(out)	(This house is out of the city.)
	sur or *sus*	*Il est sur la mer.*
	(upon)	(He is upon the sea.)
	sous	*Tout ce qui est sous le ciel.*
	(under)	(All which is under heaven.)
	devant	*Un tel marchait devant le roi.*
	(before, in front of)	(Such a one walked before the king.)
	après	*Un tel marchait après le roi.*
	(behind)	(Such a one walked behind the king.)
	chez	*Il est chez le roi.*
	(at the place of)	(He is at the place of the king.)
of time	*avant*	*Avant la guerre.*
	(before)	(Before the war.)
	pendant	*Pendant la guerre.*
	(during)	(During the war.)
	depuis	*Depuis la guerre.*
	(since)	(Since the war.)
of the term indicating	where one is going	*en* *Il va en Italie.*
		(to He goes to Italy.)
		à *À Rome*
		(to to Rome.)
		vers *L'aimant se tourne vers le nord.*
		(towards The magnet turns towards the north.)
		envers *Son amour envers Dieu.*
		(towards His love towards God.)
	from where one leaves	*de* *Il part de Paris.*
		(from He leaves from Paris.)

of cause	efficient	*par Maison bâtie par un architecte.* (by House built by an architect.)
	material	*de de pierre ou de brique.* (of of stone or of brick.)
	final	*pour pour y loger.* (in order to in order to live there.)
other relationships of	union:	*avec Les soldats avec leurs officiers.* (with The soldiers with their officers.)
	separation:	*sans Les soldats sans leurs officiers.* (without The soldiers without their officers.)
	exception:	*outre Compagnie de cent soldats outre les officiers.* (besides A company of a hundred soldiers besides officers.)
	opposition:	*contre Soldats revoltés contre leurs officiers.* (against Soldiers revolted against their officers.)
	deletion:	*de Soldats retranchés de regiment.* (from Soldiers excused from the regiment.)
	exchange:	*pour Rendre un prisonnier pour un autre.* (for Give up a prisoner for another.)
	conformity:	*selon Selon la raison.* (according to According to reason.)

There are some remarks to make concerning prepositions, as much for all languages as for French in particular.

First, on the subject of prepositions, no language has followed what reason would have desired, which is that one relationship

should be marked by one preposition, and that the same preposition should only mark one relationship. For, on the contrary, what we have seen in the above examples taken from French happens in all languages, namely that the identical relationship is signified by several prepositions, as *dans*, *en*, *à* can all signify *in*; and that the same preposition, like *en* or *à*, mark different relationships. It is this which often causes obscurities in the Hebrew language, and in scriptural Greek, which is full of Hebraisms; because the Hebrews have few prepositions,[3] they employ them for many different uses. Thus the preposition בְּ, which is called an *affix* because it is attached to words, is taken in several senses. The New Testament writers, who have rendered it by ἐν, *in*, take this *in* in very different senses, as one sees particularly in St. Paul, where this is taken sometimes as *by*, *nemo potest dicere*, *Dominus Jesus*, *nisi in spiritu sancto*[4] (no one can say "Lord Jesus" unless he speaks *by* the Holy Spirit), sometimes as *according to*, e.g. *cui vult*, *nubat tantum in Domino*[5] (she may marry whom she will, only let her marry *according to* the Lord), sometimes as *with*, e. g. *omnia vestra in charitate fiant*[6] (let all your actions be done *with* charity), and sometimes in other ways.

The second remark is that *de* and *à* are not only marks of the genitive and the dative respectively, but are also prepositions which designate other connections. For, when one says *il est sorti de la ville* (he has exited from the city) or *il est allé à sa maison des champs* (he has gone to his country house), *de* does not mark a genitive, but rather serves the same function as the Latin prepositions *ab* or *ex* (from, out of), as in *egressus est ex urbe* (he exited from the city) and *à* does not mark a dative, but serves the same function as the Latin *in* as in *abiit in villam suam* (he went off to his own house).

The third remark is that it is necessary to distinguish the following five prepositions carefully, *dans* (in), *hors* (out of), *sus* (on),

[3] This claim is unjustified. See Gesenius, 308ff.
[4] I Corinthians, 12.3.
[5] I Corinthians, 7.39.
[6] I Corinthians, 16.14.

sous (under), *avant* (before), from five words which have the same signification, but which are not at all prepositions, at least ordinarily — *dedans* (inside), *dehors* (outside), *dessus* (on top), *dessous* (underneath), and *auparavant* (formerly).

The last of these words is an adverb which is put separately, and not before a noun. For it is proper to say *il était venu auparavant* (he had come formerly), but one must not say for "he came before dinner" *il était venu auparavant dîner* (he had come formerly dinner) but rather *avant dîner* (before dinner), or *avant que de dîner* (before dining). And as far as the other four are concerned, *dedans*, *dehors*, *dessus*, *dessous*, I believe that these are nouns, as is shown by the fact that they are nearly always joined to an article; *le dedans*, *le dehors*, *au dedans*, *au dehors*, and that they also govern the noun which follows them in the genitive, which is what substantive nouns govern, as in *au dedans de la maison* (inside of the house), *au-dessus du toit* (on top of the roof).

There is nevertheless one exception, that Mr. de Vaugelas has judiciously noted,[7] which is that these words become prepositions again when the two opposite ones are put together and the noun is joined only to the latter one, as for example, *la peste est dedans et dehors la ville* (the plague is inside and out of the city); *il y a des animaux dessus et dessous la terre* (there are animals above and beneath the earth).

The fourth remark concerns the following four particles, *en*, *y*, *dont*, *où*, which signify *de* or *à* in their fullest extent, and also signify *lui* or *qui*; for *en* signifies *de lui* (of him, her, it), *y* signifies *à lui* (to him, her, it), *dont* signifies *de qui* (of which, whom), and *où* signifies *à qui* (to which, whom). And the principal use of these particles is to observe the two rules of which we have spoken in the chapter "Of Pronouns",[8] which is that *lui* and *qui* in the genitive, dative, and ablative, are ordinarily only used of persons, and thus, when one speaks of things, one uses *en* instead of either the genitive *de lui* or the pronoun *son*. Similarly, in such cases one uses *y*

[7] Vaugelas, *Remarques*, "Sur, sous", 124; "Auparavant, auparavant que", 475; "Par sus tout", 526; "Sur, et dessus", 555.

[8] See above, Part II, Chapter VIII.

instead of the dative *à lui* to mean *to it*, *dont* instead of the genitive *de qui* or *duquel* to mean *of which*. (The latter can be used, but is ordinarily too weak.) One uses *où* instead of the dative *à qui* or *auquel* to mean *to which*. See the chapter on pronouns.

XII

OF ADVERBS

The desire which men have to abbreviate discourse is what has made a place for adverbs, for the majority of these particles are used only for signifying in a single word what could only be otherwise indicated by a preposition and a noun: as for example *sapienter* (wisely) in Latin for *cum sapientiā* (with wisdom), or as another example *hodie* (today) in Latin for *in hoc die* (on this day).

And this is why in the vernacular languages the majority of these adverbs are ordinarily expressed more elegantly by the noun and the preposition. Thus one would rather say *avec sagesse* (with wisdom), *avec prudence* (with prudence), *avec orgeuil* (with pride), *avec modération* (with moderation), than *sagement* (wisely), *prudemment* (prudently), *orgeuilleusement* (proudly), *modérément* (moderately), although in Latin, on the contrary, it is ordinarily more elegant to use adverbs.

Thus it happens also that one often takes what is in reality a noun for an adverb, like *instar* (like), *primūm* (first), or *primō* (at first), *partim* (partly). See the *New Latin Method.*[1] Similarly in French we have *dessus* (on top), *dessous* (underneath), *dedans* (inside) which are in reality nouns, as we saw in the preceding chapter.

Because these particles are ordinarily joined to the verb in order to modify and determine the action, like *generosē pugnavit* (he fought valiantly), they were called *adverbs.*

[1] *New Latin Method*, Book VI, Section V, Chapter I, § 2, "That what is taken for an Adverb is frequently another part of speech", 144.

XIII

OF VERBS, AND OF THAT WHICH IS PROPER AND ESSENTIAL TO THEM[1]

Until now, we have explicated those words which signify the *objects* of thought.[2] It remains to speak of those which signify the *manner* of thought, i.e. the verbs, the conjunctions, and the interjections.

The knowledge of the nature of the verb depends on what we have said at the beginning of this discourse, namely that the judgments that we make about things, as when I say *the earth is round* necessarily includes two terms, one called the subject, which is that of which one affirms, *the earth* in the above example, and the other the predicate, which is that which is affirmed, *round* in the above example. There is further the connection between these two terms, which is properly speaking the action of our minds which affirms the predicate of the subject.

Thus men have had no less need of inventing words that mark *affirmation* or *assertion*, which is the principal mode of our thought, than of inventing words which mark the objects of our thought.

And this is properly speaking what the verb is, *a word whose principal use is to signify affirmation or assertion*, that is, to indicate that the discourse where this word is employed is the discourse of a man who not only conceives things, but who judges and affirms them. In this the verb is distinguished from a number of nouns which also signify affirmation, such as *affirmans* (an affirming), *affirmatio* (affirmation), because the latter signify it only in as much as by an act of reflection of the mind, the affirmation has

[1] *Logic*, Part II, Chapter 2, "The Verb" reprints the chapter virtually verbatim.
[2] See above, Part II, Chapter I ff.

become an object of our thought, and they do not indicate that he who makes use of these words *affirms*, but only that he conceives of an affirmation.

I have said that the principal use of the verb is to signify affirmation or assertion, because we will show later that it is also used in order to signify other movements of the soul, like *to desire*, *to pray*, *to command*, etc. But this is only changing the inflection and the mood, and thus we are considering the verb in this whole chapter only according to its principal signification, which is the one which it has in the indicative, and we shall withhold discussion of the others for another place.

According to that, one can say that the verb in itself ought to have no other use save to mark the connection that we make in our minds between the two terms of a proposition, but it is only the verb *to be*, which is called the substantive verb, which remained in this simple state, and further one can say that even this verb properly speaking only remained so in the third person present, *is*, and on certain occasions. For, as men naturally proceed to shorten their expressions, they have almost always joined to the affirmation some other significations in the same word.

(1) They have joined to it that of some attribute, so that in such a case the two words constitute a proposition, as when I say *Petrus vivit* (Peter lives). For the word *lives* includes not only the affirmation, but also the property of being alive. Thus it is the same thing to say *Peter lives* as to say *Peter is living*. From this comes the great diversity of verbs in each language. Whereas if people had been content to give to the verb the general signification of affirmation, without joining to it any particular attribute, one would only have had a need for one single verb in each language, which is the one called substantive.[3]

(2) They have also joined to it in certain instances the subject

[3] Cf. Aristotle, *De Interpretatione*, Chap. 12, 21b, 5, trans. E. M. Edghill, in Richard McKeon ed., *Basic Works of Aristotle* (New York: Random House, 1941). Cf. *Metaphysics*, 1017a, 28, trans. W. D. Ross, in McKeon, *Basic Works*, "For there is no difference between 'the man is recovering' and 'the man recovers', nor between 'the man is walking' or 'cutting' and 'the man walks' or 'cuts', and similarly in all other cases."

of the proposition, so that in such an instance two words, and indeed even one word, can constitute a complete proposition. The case of two words is exemplified when one says in Latin *sum homo* (I am a man), because *sum* not only signifies the affirmation, but also includes the signification of the pronoun *ego* (I), which is the subject of this proposition, which in French is always expressed as *je suis homme* [or in English as *I am a man*]. A single word constituting a proposition is illustrated by the Latin examples *vivo* (I am living) and *sedeo* (I am sitting). For these verbs contain in themselves both the affirmation and the attribute, as we have already said, and being in the first person, they also include the subject, *I*. From this has arisen the difference of persons, which is ordinarily found in all verbs.

(3) They have also joined to it a relationship to the time regarding which the affirmation is made, so that a single word, like *caenasti* (you supped) signifies that I affirm of him to whom I am speaking the action of *supping*, not for the present time, but for the past. And from this has come the diversity of tenses which is again, ordinarily, common to all verbs.

The diversity of these significations joined in the same word is that which prevented many otherwise very astute people from properly understanding the nature of the verb, because they did not consider it according to what is essential to it, namely affirmation, but rather according to the following relationships which are accidental to it *qua* verb.

Thus Aristotle, having confined his attention to the third type of signification which is adjoined to that which is essential to the verb, defined it as *vox significans cum tempore* (a word which signifies with time).[4]

Others, like Buxtorf, having added the second signification, have defined it as follows: *vox flexilis cum tempore et persona*[5]

[4] Aristotle, *De Interpretatione*, Chap. 3, 16b, 6; "A verb is that which, in addition to its proper meaning, carries with it the notion of time".

[5] Johannes Buxtorf (1564-1629) was Professor of Hebrew at Basle, and a well-known grammarian. He is best known for his grammar of the Hebrew language, *Epistome Grammaticae Hebraeae*. Brekle cites the reference to the London edition of 1653 as follows: Chapter XII, *De Verbo*, 22. Donzé, 188,

(a word which has different inflections with time [tenses] and persons).

Still others, having stopped at the first of these adjoined significations, namely that of the attribute, and having considered that the attributes that men have joined to the affirmation in the same word ordinarily pertain to actions and passions, believed that the essence of the verb consisted in *signifying actions or passions.*

And finally Julius Caesar Scaliger believed that he solved a great mystery in his book *On the Principles of the Latin Language* by saying that the distinction of things into *in permanentes et fluentes*, that which endures and that which changes, was the true source of the distinction between nouns and verbs; the nouns signifying what endures, and the verbs signifying what changes.[6]

But it is easy to see that all these definitions are false, and do not at all explain the true nature of the verb.

The manner in which the first two definitions were conceived makes this manifest, because it is not at all said there what the verb signifies, but only *with what* it signifies — *cum tempore*, *cum persona*, with time [tense], with person.

The latter two are even worse, for they suffer from the two greatest vices of a definition, *neque omni*, *neque soli*, which is to fit neither all that is being defined, nor only what is being defined.

For there are verbs which signify neither actions nor passions, nor what changes, like *existit* (it exists), *quiescit* (it rests), *friget* (it is cold), *alget* (it is chilled), *tepet* (it is warm), *calet* (it is hot), *albet* (it is white), *viret* (it is green), *claret* (it is bright), of which we will speak in another place.

And furthermore there are some words that are not verbs at all which signify actions and passions and even things which change in conformity with Scaliger's definition. For it is certain that

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n. 16, points out that similar definitions exist in the works of two other grammarians known to Arnauld and Lancelot: the *Gramere* of Ramus, and Sanctius' *Minerva.*

[6] Scaliger, 134, 137, 220. In the *New Latin Method*, Book VI, 98, Lancelot cites Sanctius as holding this same view. Cf. Sanctius, Book III, Chapter II, text cited in Donzé, 209, n. 57.

participles are truly nouns, and that nonetheless those which are formed from active verbs signify actions and those which are formed from passive verbs signify passions, no less than the very verbs from whence they come, and there is no reason whatever to pretend that *fluens* (flowing) does not signify something which comes to pass as much as does *fluit* (it flows).

To which one can add, against the first two definitions of a verb, that participles also signify with time [tense], since there are present participles, past participles, and future participles, especially in Greek. And those who believe, not without reason, that a vocative is actually a second person, especially when it has a different ending from the nominative, will find that there is in this regard only a quantitative [rather than qualitative] difference between the participle and the verb.

And thus the essential reason why a participle is not a verb is that it does not at all signify *affirmation* or assertion, from whence it comes that it can form a proposition (this being the property of the verb) only by adding a verb, that is by replacing what has been removed in changing the verb into a participle. For why is it that *Petrus vivit* (Peter lives) is a proposition while *Petrus vivens* (Peter living) is not, if not because the affirmation which is contained in *vivit* (lives) has been removed in order to form the participle *vivens* (living). From whence it appears that the affirmation which is either found or not found in a word is what determines its being a verb or not a verb.

Concerning this one can further remark in passing that the infinitive, which is very often a noun (as we shall explain), as when we say *le boire* (the drink), *le manger* (food; literally, the eat), differs from participles in that participles are adjectival nouns, while the infinitive is a substantive noun, made by abstraction from this adjective, in the same way as from *candidus* in Latin comes *candor*, or from *white* comes *whiteness*. Thus in Latin *rubet*, a verb, signifies *is red*, comprising both the affirmation and the attribute, while *rubens*, the participle, simply signifies *red*, without the affirmation, and *rubere*, taken as a noun, signifies *redness*.

It ought therefore remain certain, in considering simply

what is essential to the verb, that its only true definition is *vox significans affirmationem* or a word which signifies affirmation or assertion. For one cannot find a word which marks affirmation and which is not a verb, nor can one find a verb which does not serve to mark affirmation, at least in the indicative. And it is indubitable that if a word such as *est* (is), which always marked affirmation, had been invented without having any difference either of person or tense, so that the diversity of persons were marked solely by nouns and pronouns, and the diversity of tenses by adverbs, it would not fail to be a true verb. Thus, in fact, in the propositions that the philosophers call eternal like *God is infinite*, *all body is divisible*, *the whole is greater than its parts*, the word *is* signifies only simple affirmation, without any relationship to time, because these are true for all time, and without our mind attending to any diversity of persons.[7]

Thus the verb, according to its essential characterization, is a word which signifies affirmation. But if one wished to add to the definition of the verb its principal accidental qualities noted earlier, it could be defined as follows: *vox significans affirmationem*, *cum designatione personae*, *numeri et temporis* (a word which signifies affirmation or assertion, with the designation of person, number, and time [tense]). This is what properly belongs to substantive verbs.

As far as the other verbs are concerned, in so far as they differ from it in terms of the union which men have made of the affirmation with certain attributes, they can be defined in this way: *vox significans affirmationem alicujus attributi*, *cum designatione personae*, *numeri*, *et temporis* (a word which marks the affirmation or assertion of some attribute, with the designation of person, number, and time [tense]).

And it can be noted in passing that the affirmation, in so far as it is conceived, can also be the attribute of the verb. For example, in the verb *affirmo* (affirm), this verb signifies two affirmations; of which one concerns the person who is speaking and the other

[7] What is being distinguished here are what Kant later called "analytic *a priori* judgments", and what Hume called "relations of ideas".

concerns the person of whom one speaks, whether the latter is the speaker or another person. For when I say *Petrus affirmat* (Peter affirms), *affirmat* is the same thing as *est affirmans* (is affirming), and therefore *est* (is) marks my affirmation, or the judgment that I make concerning Peter, and *affirmans* ([is] affirming) marks the affirmation that I conceive and that I attribute to Peter.

The verb *nego* (deny), on the contrary, contains an affirmation and a negation, for the same reason.

It is necessary once again to remark that although not all our judgments are affirmations, there being some negative ones, nevertheless the verbs themselves do not signify anything but affirmations, the negations being marked by the particles *non*, *ne*, or by nouns that entail these particles: *nullus* (none, not any), or *nemo* (no one), which, when joined to verbs, change the affirmation into a negation, for example, *nul homme n'est immortel* (no man is immortal); *nullum corpus est indivisibile* (no body is indivisible).

But after having explained the essence of the verb, and having in a few words indicated its principal accidents, it is necessary to consider these same accidents in a bit more detail, and it is appropriate to begin with those which are common to all verbs, to wit, the diversity of persons, numbers, and tenses.

XIV

OF THE DIVERSITY OF PERSONS AND NUMBERS IN VERBS

We have already stated that the diversity of persons and numbers in verbs has come from the fact that men have wanted, for the sake of brevity, to join in the same word to the affirmation which is proper to the verb, the subject of the proposition, at least in certain instances. For when a man speaks of himself, the subject of the proposition is the first person pronoun, *ego* (I); and when he speaks of him to whom he addresses his speech, the subject of the proposition is the second person pronoun, *thou*, *you*.

Now, to obviate always having to make use of these pronouns, it was believed that it would suffice to give to the word which signifies the affirmation a certain ending which indicated that it is of oneself that one is speaking, and it is this which has been called the first person form of the verb, as in *video* (I see).

The same thing has been done with regard to the one to whom speech is addressed, and this is what has been called the second person, *vides* (thou seest). And as these pronouns have their plural form, when one speaks of oneself together with others, *nos* (we), or of the one to whom one speaks also together with others, *vos* (you), two different endings have been given to the plural: *videmus* (we see), *videtis* (you see).

But because the subject of the proposition is often neither the speaker nor the one to whom one is speaking, it was necessary in order to restrict these two endings to these two sorts of person, to create a third ending that was joined to all the other subjects of the proposition. And this is what has been called the third person, both in the singular and in the plural, although the word *person*

which properly belongs only to rational and intelligent substances is only appropriate to the first two categories, since the third is for all sorts of things, and not only for people.

It can be seen from this that what is called the third person ought naturally to be the stem of the verb, as it is in all Oriental languages.[1] For it is more natural that the verb first signify the affirmation, without marking any subject in particular, and that later it be determined by a new inflection to include as subject the first or second person.

This diversity of endings for the two first persons shows that the ancient languages had good reason to join the pronouns of the first and second person to verbs only rarely and for very particular reasons, being content to say *video* (I see), *vides* (thou seest), *videmus* (we see), *videtis* (you see). Indeed it is for this very reason that these endings were originally invented, in order to dispense with having to join these pronouns to the verbs. And nevertheless the vernacular languages, and particularly French, never fail to join these pronouns to verbs, as in *je vois* (I see), *tu vois* (thou seest), *nous voyons* (we see), *vous voyez* (you see). This has perhaps come from the fact that it very often happens that several of these persons do not have different endings, as is the case of verbs ending with *-er*, such as *aimer* (to love), which have the same ending in the first and third persons, as *j'aime* (I love) and *il aime* (he loves). Other verbs have the same endings in the first and second persons, as for example, *lire* (to read); *je lis* (I read), *tu lis* (thou readest). And in Italian, very often all three persons in the singular are the same, besides the fact that often several of these persons when not joined to a pronoun become imperatives, as for example, *vois* (see!), *aime* (love!), *lis* (read!), etc.

But in addition to these two numbers, singular and plural, which are found in verbs as well as nouns, the Greeks have added a dual, when one speaks of two things, but this is very rarely used.

The Oriental languages have even considered it judicious

[1] I.e. Hebrew and Arabic. Cf. Gesenius, "It has long been the custom to regard as the stem the third person singular perfect *Qal*", 99. For example, אָכַל (he ate). In Arabic, it would be أَكَلَ.

to distinguish the instances where the affirmation refers to one sex or the other, the masculine or feminine. That is why very often they have given to the same person of the verb two different endings in order to distinguish the two genders.[2] This is often useful to prevent equivocation.

[2] E.g. in Hebrew, הוּא אָכַל (he ate), הִיא אָכְלָה (she ate). In Arabic هُوَ أَكَلَ (he ate), هِيَ أَكَلَتْ (she ate).

XV

OF THE DIFFERENT TENSES OF THE VERB

Another thing which we have said was joined to the affirmation of the verb is the signification of tense; for the affirmation can be made according to the different tenses, since it can be affirmed of a thing that it is, or that it has been, or that it will be, from whence has come the giving of still other inflections to the verb, in order to signify these different tenses.

There are only three simple tenses: *the present*, for example *amo* (I love); *the past*, for example *amavi* (I have loved), and *the future*, for example *amabo* (I will love).

But, because in the past one can indicate that the thing in question has only just been done, or indefinitely that it was done, it has therefore happened in most vernacular languages that there are two sorts of preterits or past tenses,[1] one which indicates

[1] Arnauld and Lancelot's use of the terms *definite* and *indefinite* past are a direct reversal of the way these terms are used today. Thus in current grammatical usage, locutions like *I wrote*, *I said*, *I did* are classified as definite past (*passé défini*, *passé simple*), while locutions like *I have written*, *I have said*, *I have done* are classified as indefinite past (*passé indéfini*, *passé composé*). Cf. Grevisse, 654-657. The terminology of Arnauld and Lancelot is all the more remarkable in light of the fact that other grammarians of the period used the terms in the modern way. See for example Vaugelas, 109, "Vesquit, Vescut". The contemporary characterizations of these two tenses are as follows: The definite past is defined as expressing "an act completely finished at a definite moment of the past, without considering the contact which this act, either in itself or by its consequences, can have with the present" (Grevisse, 654, translation by the editors). The indefinite past is defined as indicating "an act finished at a definite or indefinite period of the past and which is considered as being in contact with the present, either in that this act has taken place in a period of time still not entirely elapsed, or else that its consequences are envisaged in the present" (Grevisse, 656, translation by the editors).

the thing precisely done, and consequently called the definite past [*défini*], as for example *j'ai écrit* (I have written), *j'ai dit* (I have said), *j'ai fait* (I have done), *j'ai dîné* (I have dined), and the other which marks the thing indeterminately done, and which is consequently called the *indefinite* [*indéfini*] or *aorist*,[2] as for example, *j'écrivis* (I wrote), *je fis* (I did), *j'allai* (I went), *je dînai* (I dined). The latter is not properly said except of a time which was at least one whole day removed from the time at which we speak. For one does indeed say in French *j'écrivis hier* (I wrote yesterday [indefinite past]), but one does not say *j'écrivis ce matin*, *j'écrivis cette nuit* (I wrote this morning, I wrote tonight [indefinite past]), but rather *j'ai écrit ce matin*, *j'ai écrit cette nuit* (I have written this morning, I have written tonight [definite past]). French is so exact regarding the propriety of expressions that it allows no exception to this rule, although Spanish and Italian sometimes confound these two past tenses, taking one for the other.[3]

The future can also admit of the same distinction, for one can have the desire to indicate a thing which must soon come to pass; thus we see that the Greeks have their paulo-post future, μετ' ὀλιγον μέλλων,[4] which indicates that the thing is about to happen, or that one ought to consider it virtually done, as in ποιήσομαι (I will do it instantly), asserting this is done. One can also indicate a thing as that which is simply to happen, like ποιήσω (I will do); *amabo* (I will love).

So much for the tenses, considered simply in their nature as present, preterit, and future.

[2] The term *aorist* is derived from Greek grammar (cf. *New Greek Method*, 118), and literally means "without limit".

[3] According to Ferdinand Brunot in his *Précis de Grammaire historique de la langue française* (Paris: Masson et Cie., 1949), 380, by the end of the sixteenth century, at least in Paris, the distinction between the two tenses was already quite obliterated. Brunot adds that in the seventeenth century, the grammarians dictated various artificial rules to distinguish between the two tenses, such as the "one whole day" rule cited above in the text. He further indicates that the French Academy censured Corneille for violating the twenty-four hour rule. Vaugelas, in the passage cited above in note 1, views the two tenses as interchangeable.

[4] See *New Greek Method*, 158-159.

But, because it was also desired to indicate each of these tenses in relation to one another by a single word, this led to the invention of inflections of the verb which can be called *tenses compound in meaning*[5] and of which there are also three.

The first is the compound tense which indicates the past in relation to the present, and which has been called the *preterit imperfect*, because it does not indicate the thing simply and properly as done, but rather as imperfect and present with respect to a thing which has nevertheless already passed. Thus when I say *cum intravit caenabam* (I was supping when he entered), the action of supping is indeed past with respect to the time at which I speak, but I indicate it as present with respect to the thing of which I speak, which is the entry of such a person.

The second compound tense is that which doubly marks the past, and which, because of this, is called the *pluperfect*, such as *caenaveram* (I had supped), by which I indicate my action of supping not only as past in itself, but also as past with respect to another thing which is also past, such as when I say *I had supped when he entered*; this indicates that my supping had preceded this entry, which is however also past.

The third compound tense is that which indicates the future in relation to the past, and is called the *future perfect*. Thus we have *caenavero* (I will have supped), by which I indicate my action of supping as future in itself, and as past with respect to another thing yet to come, which must follow it, such as *quand j'aurai soupé, il entrera* (when I will have supped, he will enter); this means that my supping, which has not yet taken place, will have passed when his entry, which has also not yet happened, will be present.

It would have been possible to add a fourth compound tense, namely, that which would indicate the future in relation with the present, in order to form as many compound future tenses as compound preterit tenses. And perhaps the second future of the Greeks originally marked this relationship, from whence it comes

[5] See Donzé, 122-123.

that it nearly always conserves the feature of the present; nevertheless, in usage it has been confounded with the first future. Even in Latin, one makes use of the simple future for this purpose, as in *cum caenabo intrabis* (you will enter when I will sup), by which I indicate my supping as future in itself, but as present with respect to your entry.

Here is what has given rise to the diverse inflections of verbs in order to indicate the different tenses, concerning which it is necessary to note that the Oriental languages only have the past and the future, without all the other distinctions of the imperfect, the pluperfect, etc. This fact makes these languages subject to many ambiguities which are not encountered in other languages.

XVI

OF THE DIFFERENT MOODS OR MANNERS OF VERBS[1]

We have already said that verbs are of the class of words which signify the manner and the form of our thoughts, of which the principal one is affirmation; and we have also noted that verbs receive different inflections according to how the affirmation concerns different persons and different times or tenses. But men have found that it was well to invent still other inflections in order to explicate more distinctly that which happens in their minds; for first they have noticed that beyond simple affirmations like *he loves*, *he loved*, there were some conditioned and some modified affirmations, like *quoiqu'il aimât* (although he would have loved), *quand il aimerait* (when he would love). And in order to better distinguish these affirmations from the others, they have doubled the inflections of those tenses, making use of the one for simple affirmations, like *loves*, *loved*, and reserving the others for the modified affirmations, as in *aimât* (would have loved), *aimerait* (would love), although they were not consistent in their rules. They sometimes used simple inflections to mark modified affirmations, like *et si vereor* (and if I am afraid), for *et si verear* (and if I should be afraid), and it is of these latter sorts of inflections that the Grammarians have formed their mood called the subjunctive.

Further, in addition to the affirmation, the action of our will can be taken for a manner of our thoughts, and men have had need of making understood what they willed, as well as what they thought. Now we can will a thing in several manners, of which three are considered as the principal ones.

[1] Cf. Donzé, 112-119, and notes thereto.

(1) We will things which do not depend on us, and then we will them only by a simple wish; this is what is expressed in Latin by the particle *utinam* (would that) or in French by *plût à Dieu* (would to God that). Some languages, like Greek, have invented inflections particularly for this; this is what has given the Grammarians grounds for calling it the *optative mood.* And there are some constructions in French, Spanish, and Italian which can be related to that, because they have tenses which are triple. But in Latin, the same inflections are used for both the subjunctive and the optative, and this is why one would have done well to delete this mood from Latin conjugations, for it is not only the different manner of signifying, which can be greatly multiplied, but also the different inflections, which ought to form moods.

(2) We will in yet another way, when we are content with granting a thing, although absolutely speaking, we do not will it, as when Terence says, *profundat, perdat, pereat*[2] (let him expend, let him lose, let him perish). Men could have been able to invent an inflection to indicate this mental experience, just as well as they have invented one in Greek to indicate simple desire, but they have not done this, and utilize the subjunctive instead. And in French it is expressed by the addition of a *que* (let) as in *qu'il dépense* (let him expend). Some grammarians have called this *modus potentialis* (potential mood) or *modus concessivus* (conceding mood).[3]

(3) The third sort of willing is when what we will depends on a person from whom we can obtain it, when we signify to this person the wish that we have that he should do it. This is the mental state that we experience when we command or when we pray. It is in order to indicate this experience that the mood called *imperative* was invented, which has no first person, especially in the singular, because one does not properly speaking command oneself. In several languages this does not appear in the third person either, because properly speaking one only gives commands

[2] Terence, *Adelphi*, I, 2:53-54.

[3] The last sentence of this paragraph does not appear in the first edition of 1660.

to the one whom one is addressing and to whom one is speaking. And since the command or the prayer in question is always made in reference to the future, it happens as a result that the imperative and the future are often taken for one another, especially in Hebrew. Thus for example, we have *non occides* (thou shalt not kill), for *do not kill.*[4] From whence comes the fact that some grammarians have grouped the imperative among the future tenses.

Of all these moods which we have just mentioned, the Oriental languages only have the last one, that is, the imperative, and on the contrary, the vernacular languages do not have any particular inflection for the imperative. But what is done in French to indicate it is to use the second person plural, and even the first person plural, without the pronouns which precede them. Thus *vous aimez* (you love), is a simple affirmation, while *aimez* (love!) is an imperative. Similarly, *nous aimons* (we love) is an affirmation, while *aimons* (let us love!) is an imperative. But when one commands in the singular, which is very rare,[5] one does not utilize the second person *tu aimes* (you love), but the first person *aime* (love!).

[4] The Hebrew example cited is לֹא תִרְצָח, where the point made by Arnauld and Lancelot is legitimate, since the phrase can either serve as a command or as a future, if prefixed by the second person pronoun. In other imperatives, however, the future is not used. For example, some imperatives are formed by use of the *infinitive absolute* (cf. Gesenius, 362ff.).

[5] Brunot, *Histoire de la langue française* Volume IV, Première partie, 53, singles out this passage for caustic criticism. He asserts that "it is an inadvertence to affirm that one commands very rarely in the singular. In the 'little schools' of Port-Royal perhaps, the students being little gentlemen; at the court also; but elsewhere?" (translation by the editors).

XVII

OF THE INFINITIVE

There is yet another inflection of the verb, which is called the *infinitive*, such as *esse* (to be), *amare* (to love). It must be noted that sometimes the infinitive retains the affirmation, as when I say *scio malum esse fugiendum* (I know evil has to be shunned), and that often it loses the affirmation and becomes a noun (principally in Greek and in the vernacular languages) as when one says in French *le boire* (the drink) and *le manger* (food; literally, the eat),[1] and similarly *je veux boire* in French or *volo bibere* in Latin (both literally, I want to drink) which means *volo potum* or *potionem* (I want a drink).

This being supposed, one wishes to know what is proper to the infinitive when it is not a noun and while it still retains its affirmation, as in the preceding example, *scio malum esse fugiendum*. I do not know if anyone has noted what I am about to say: it seems to me that the infinitive is among the other moods of the verb what the relative is among the other pronouns. For, as we have said that the relative, in addition to what the other pronouns do, joins the proposition into which it enters to another proposition, I believe similarly that the infinitive has, over and above the affirmation of the verb, the power to join the proposition in which it appears to another proposition. For *scio* (I know) by itself asserts a proposition, and if you were to add *malum est fugiendum* (evil is avoided) to it, this creates two separate propositions. But in putting *esse* [the infinitive] instead of *est*, you make it such that the

[1] I.e. *boire* and *manger* are respectively in French the infinitives *to drink* and *to eat*.

latter proposition is only part of the former, as we have explained at greater length in Chapter IX, dealing with the relative.[2]

And from this has come the fact that in French we almost always render the infinitive by the indicative of the verb and the particle *que* (that) — *je sais que le mal est à fuir* (I know that evil is to be shunned). And then (as we have said in the same place), the *que* only signifies the union of one proposition with another, which union in Latin is included in the infinitive, and in French also, although more rarely, as when one says, *il croit savoir toutes choses* (he believes that he knows everything; literally, he believes to know everything).

This manner of joining propositions by an infinitive, or by the *quod* and the *que* (that) is principally used when one reports the discourse of others, as when I wish to report that the king said to me, *je vous donnerai une charge* (I will give you a public office). I will not ordinarily relate this in these terms: *le roi m'a dit: je vous donnerai une charge* (the king said to me, "I will give you a public office"), leaving the two propositions separate, one concerning me, and the other the king, but rather I join them together by a *que* (that): *le roi m'a dit qu'il me donnera une charge* (the king said to me that he will give me a public office). And thus, since it is now but one proposition which is about me, I change the first person *je donnerai* (I will give) to the third, *il donnera* (he will give), and the pronoun *vous* (you) which signifies me when the king is speaking, to the pronoun *me* (me) which signifies me when I am speaking.

This union of propositions also is formed by the *si* (if) in French, and by *an* (or, whether) in Latin when the discourse which is reported is interrogative. For example, if someone asks me *Pouvez-vous faire cela*? (Can you do that?), I would say in relating the statement, *on m'a demandé si je pouvais faire cela* (I was asked if I could do that). And sometimes this would be expressed without any particle, only by changing the person, as in the following:

[2] For a discussion of the infinitival construction in relation to the relative pronoun from a transformational point of view, see Chomsky, *Cartesian Linguistics*, 39ff.

Il m'a demandé: qui êtes-vous? (He asked me: "Who are you?") would be expressed as *Il m'a demandé qui j'étais* (He asked me who I was).

But it is necessary to note that the Hebrews, even when they speak another language, like the Evangelists, make little use of this union of propositions and almost always report discourse directly, and as it took place, so that the ὅτι or *quod* (that) which they do sometimes use often serves no purpose, and does not link the propositions as it does in other authors. Here is an example from the first chapter of Saint John:

Miserunt Judaei ab Hierosolymis sacerdotes et levitas ad Joannem ut interrogarent eum: Tu quis es? *Et confessus est et non negavit, et confessus est: quia* (ὅτι) *non sum ego Christus. Et interrogaverunt eum: Quid ergo*? *Elias es tu*? *Et dixit: Non sum. Propheta es tu*? *Et respondit, non.*[3]
(The Jews sent priests and Levites from Jerusalem to John to ask him, Who art thou? And he confessed, and denied not, but confessed, I am not the Christ. And they asked him, What then? Art thou Elias? And he said, I am not. Art thou that prophet? And he answered, No.)

According to the ordinary usage of our language (French), these questions and responses would have been reported indirectly in this manner:

They sent to ask John who he was. And he confessed that he was not Christ. And they asked him who he was then, if he was Elias, and he said that he was not; if he was a prophet, and he answered that he was not.

This custom has even passed into use among secular authors, who also seem to have borrowed it from the Hebrews. And from whence it comes that the ὅτι, as we have already noted earlier in Chapter IX, often has for these authors only the force of a pronoun shorn of its connecting usage, even when the discourse is not directly reported.

[3] John, 1. 19-21.

XVIII

OF VERBS THAT MAY BE CALLED ADJECTIVES; AND OF THEIR DIFFERENT VARIETIES, ACTIVE, PASSIVE, AND NEUTER

We have already said that men, having joined some particular predicate to the affirmation in an infinity of instances have in this way fashioned of these affirmations a great number of verbs which are different from the substantive, and which are found in all languages. These may be called *adjectives*, to show that the signification which is proper to each is added to the signification which is common to all the verbs, which is that of the affirmation. But it is a common error to believe that all these verbs signify either actions or passions, for there is nothing that a verb cannot have as its attribute, if it pleases men to join this attribute to the affirmation. We even see that the substantive verb *sum* (I am) is often an adjective, because instead of taking it as simply signifying the affirmation, one joins to it the most general of all attributes, which is *being*.[1] For example, when I say, *I think therefore I am*, *I am* signifies there *sum ens*, I am a being, a thing. *Existo* signifies also *sum existens*, I am, I exist.

This nevertheless does not prevent us from retaining the common division of these verbs into *active*, *passive*, and *neuter*.

What are properly called *active* verbs are those which signify an action to which is opposed a passion, like *to beat*, *to be beaten*; *to love*, *to be loved*. Either these actions are directed towards a *subject*, in which case they are called *real actions*, such as for example *to beat*, *to break*, *to kill*, *to slander*. [Thus we speak of the

[1] Cf. Aristotle, *Metaphysics*, 1001a-1001b; 1040b ff; Book X, Chapter 2, for discussion of being and unity as the most general attributes.

subject of a beating, the subject of a killing, the subject of a slander.][2] Or else they are directed only at an *object*,[3] in which case they are called *intentional actions*,[4] such as for example *to love, to know, to see.* [Thus we speak of the *object of love, the object of knowledge, the object of vision.*][5]

[2] I.e. according to Arnauld and Lancelot, the subject locution is suitable for the case of these real actions which take place in the extra-mental world.

[3] The sense of "object" being employed here is related to the Scholastic locution "objective" used by Descartes when talking about *ideas.* For example, in the *Third Meditation*, Descartes asserts that "the reality that I consider in ... ideas is only objective" (Haldane and Ross, I, 163). Also in this Meditation he argues that the principle that there must be as much reality in the efficient cause as in its effect "is not only evidently true of those effects which possess actual or formal reality, but also of the ideas in which we consider merely what is termed objective reality". Thus the object locution is suitable for purely mental actions, according to Arnauld and Lancelot. See below, notes 4 and 5.

[4] The notion of intentionality as activity of the mind indicated here is Scholastic, and can be found in the works of Albertus Magnus, Bonaventura, Thomas, and William of Occam, among others. More recently in the nineteenth century, the concept is revived in the work of Franz Brentano (who also derived his usage from that of the Scholastics), and is carried on as the key concept in Edmund Husserl's phenomenology. The logic of intentional locutions has been investigated in Anglo-American philosophy in terms of problems of meaning, reference, philosophical psychology, and the philosophy of language. A good introduction to the recent discussion may be found in Roderick Chisholm's "Sentences about Believing", where Chisholm provides four criteria for the intentional use of language (in Herbert Feigl, Michael Scriven, and Grover Maxwell (eds.), *Minnesota Studies in the Philosophy of Science II: Concepts, Theories and the Mind-Body Problem* (Minneapolis: University of Minnesota Press, 1958), 510ff.). See also Quine, *Word and Object*, § 32 and 219ff. One characteristic feature of this intentional usage is captured by Wittgenstein's aphorism, "I can look for him when he is not there, but not hang him when he is not there", (quoted in Chisholm, "Sentences", 510). It is very possible that it is this dimension of intentional locutions which partly motivated Arnauld and Lancelot, in their use of the Cartesian object-subject language. This point is clearly made by Chisholm when he asserts that, "the term 'objective existence', referring to the existence of something *as* an object of thought, was used by medieval philosophers and by Descartes as a synonym for 'intentional existence'. Descartes thus contrasted the formal, or subjective [i.e. real], existence of actual objects with the objective existence in the mind of objects that are merely thought about" ("Intentionality", *The Encyclopedia of Philosophy* (New York: Macmillan, 1967), IV, 201).

[5] Some vestige of the connection between intentional language and the "object" locution is still extant in English. Thus we talk of "the object of love", whether in fact any actual entity is loved. Similarly, to speak of the

From whence it occurred that in several languages men have used the same word, giving it different inflections in order to signify action and passion, calling the verb active when it has the inflection by which it indicates the action, and passive when it has the inflection by which it indicates the passion; as for example, *amo* (I love, active), *amor* (I am loved, passive); *verbero* (I beat, active), *verberor* (I am beaten, passive). This is what was in use in all the ancient languages — Latin, Greek, and the Oriental languages, and what is more, these last ones give three active forms to the same verb, and to each a passive form, and a reciprocal or reflexive form which takes, as it were, from both forms, as *s'aimer* (to love oneself) would be in French, since it signifies the action of the verb on the same subject of the verb. The European vernacular languages have no passive, and they use instead a participle formed from the active verb, which is taken in a passive sense together with the substantive verb *I am*, as for example *I am loved, I am beaten*, etc. So much for the active and passive verbs.

The *neuters*, which some grammarians call *verba intransitiva* (intransitive verbs), that is, verbs which do not pass beyond themselves, are of two sorts:

First are those which signify no action, but rather *either* a quality like *albet* (it is white), *viret* (it is green), *friget* (it is cold), *alget* (it is cool), *tepet* (it is tepid), *calet* (it is hot).

Or else they signify some situation like *sedet* (he is seated), *stat* (he is standing), *jacet* (he is lying down), etc.

Or else they signify some relationship to place, such as *adest* (he is present), *abest* (he is absent), etc.

Or else they signify some other state or attribute, like *quiescit*

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object of a beating is to speak of the individual towards whom the beating was intended, rather than necessarily of the person who in fact was beaten. Thus we might say, "Mr. X was the object of the beating, although the thugs made a mistake and beat Mr. Y instead". To assert unambiguously that it was Mr. X who was beaten, one would be compelled to assert that Mr. X was the *subject* of the beating, or else use some other locution altogether.

(he is at rest), *excellit* (he excels), *praeest* (he is superior), *regnat* (he is king), etc.

Second, the other neuter verbs signify actions, but ones which do not pass on to a subject[6] different from him who acts, or which does not concern another object,[7] such as the verbs *to dine, to sup, to walk, to speak.*

Nevertheless, neuter verbs of this latter sort sometimes become transitive, when they are given a subject, such as *ambulare viam* (to walk a road), where the road is taken for the subject of the action. Often also in Greek, and sometimes also in Latin, they are given, as the subject, the noun itself formed from the verb, as for example, *pugnare pugnam* (to fight a fight), *servire servitutem* (to serve a servitude), *vivere vitam* (to live life), etc.

But I believe that these latter modes of speech only arose from the fact that people wanted to indicate something particular, which was not entirely included in the verb, as when they wanted to say that a man led a happy life, which was not included in the word *vivere*, they said *vivere vitam beatam* (to live a happy life) similarly, *servire duram servitutem* (to serve a hard servitude) and so forth. Thus, when one says *vivere vitam* (to live a life) it is probably a pleonasm, which has come from these other modes of speaking. This is also why in all the modern languages one avoids, as a mistake, joining the noun to its verb, and one does not say, for example, *combattre un grand combat* (to fight a great fight).

One can thereby resolve the following question: whether all non-passive verbs always govern an accusative [if not an overt accusative], at least one which is understood. This is the feeling of some very able grammarians,[8] but as far as I am concerned, I do not believe it. Verbs which signify no action at all

[6] As above, "subject" here and in ensuing paragraphs refers to that which undergoes a real action (i.e. the grammatical direct object of a verb which denotes a real action).

[7] As above, "object" refers to that which is the grammatical direct object of an intentional verb.

[8] According to Donzé, 103 and notes thereto, Sanctius is the reference. In the *New Latin Method*, Book VII, Chapter I, § 3, 169, Lancelot takes the same position.

but rather some state of being, like *quiescit* (it is at rest), *existit* (it exists), or else some quality, like *albet* (it is white), *calet* (it is hot), have no accusative that they could govern. As far as the others are concerned, it is necessary to consider whether the action that they signify has either a subject or an object, which can be different from the agent, for then the verb governs this subject or object in the accusative. But when the action signified by the verb has neither subject nor object different from the agent, such as *prandere* (to dine), *caenare* (to sup), etc., then there is no sufficient reason for saying that they govern the accusative, although the above-mentioned grammarians believed that the infinitive of the verb is understood there, as a noun formed by the verb, saying in effect, for example, that *curro* (I run) was either *curro cursum* (I run a running), or *curro currere* (I run a run). Nevertheless, this does not seem to be very well founded, for the verb signifies everything the infinitive taken as a noun does, and further, also signifies the affirmation and the designation of the person and the tense, as for example the adjective *candidus* (white) signifies the substantive drawn from the adjective, i. e. *candor* (whiteness), and further, the connotation of a subject in which that abstract inheres.[9] That is why there would be as many reasons to pretend that when one says *homo candidus* (white man), it is necessary to understand *candore* (with whiteness), as to imagine that when one says *currit* (he runs) it is necessary to understand *currere* (to run).

[9] Cf. above, Part II, Chapter II.

XIX

OF IMPERSONAL VERBS[1]

The infinitive, which we explored in the preceding chapter, is properly speaking what ought to be called the *impersonal verb*, since it designates the affirmation, which is proper to the verb, and marks it indefinitely without indicating either number or person, which is what it properly speaking means to be *impersonal*.[2]

Nevertheless, grammarians ordinarily give the name *impersonal* to certain defective verbs, which have scarcely anything but the third person.

These verbs are of two sorts; the first sort have the form of neuter verbs, such as *paenitet* ([one] is sorry; literally, it repents [one]), *pudet* ([one] is ashamed; literally, it shames [one]), *piget* ([one] is annoyed; literally, it annoys [one]), *licet* (it is permitted), *lubet* ([one] is pleased; literally, it pleases [one]); the second sort are made from passive verbs, and retain the form of these verbs, such as *statur* (it is stationed), *curritur* (it is run), *amatur* (it is loved), *vivitur* (it is lived), etc. Now these verbs sometimes have more persons than grammarians think, as can be seen in the *New Latin Method, Remarks Concerning Verbs*, Chapter 5.[3] But what can be considered here, and to which few people have

[1] This chapter does not appear in the first edition of 1660.

[2] In the *New Latin Method*, Lancelot attributes the view that the infinitive is the only impersonal verb to Scaliger, Sanctius, and Consentius Romanus. See Book VI, Section III, Chapter V, "Of Verbs called Impersonal, and of their nature", § 1, "What is meant by a Verb Impersonal, and that in reality there is no other but the Infinitive", 122.

[3] *New Latin Method*, Book VI, Section III, Chapter V, "Of Verbs called Impersonal and of their nature", 122ff.

perhaps attended, is that it seems that these were only called *impersonal* because, containing in their signification a subject which is appropriate only to the third person, it was not necessary to express this subject, since it is sufficiently indicated by the verb itself, and thus the affirmation and the predicate have been included in one word, i. e. the subject, such as *pudet me* (I am ashamed; literally, it shames me), that is to say *pudor tenet* (shame holds) or *est tenens me* (is holding me); *paenitet me* (I am sorry; literally, it repents me), *poena habet me* (penalty holds me); *libet mihi* (I am pleased; literally, it pleases me), *libido est mihi* (I have a desire; literally, a desire is to me). Here it is necessary to note that the verb *est* (is) is not simply a substantive, but that it also signifies existence in this instance; for it is as if it were [saying] *libido existit mihi* (the desire exists for me), or *est existens mihi* (is existing for me). And similarly in the other impersonals which are explicated by *est*, such as *licet mihi* (I am permitted; literally, it is permitted to me) for *licitum est mihi* (it is allowable to me); or *oportet orare* ([one] ought to pray; literally, it behooves [one] to pray), for *opus est orare* (there is a need to pray), etc.

As far as the impersonal passives are concerned, such as *statur* (it is stationed), *curritur* (it is run), *vivitur* (it is lived), etc. they can also be explicated by the verb *est* (it is), *fit* (it happens), or *existit* (it exists), together with the verbal nouns taken from themselves, as for example:

Statur (it is stationed) says *statio fit* (literally, standing happens) or *est facta* (is done) or *existit* (exists).

Curritur (it is run) says *cursus fit* (literally, running happens).

Concurritur (it is run together) says *concursus fit* (a running together happens).

Vivitur (it is lived) says *vita est* (there is life), or rather *vita agitur* (life is carried on). *Si sic vivitur* (if it is lived thus) says *si vita est talis* (if life is such). *Miserē vivitur, cum medicē vivitur* (life is miserable when it is excessively subjected to the rules of medicine; literally, it is lived miserably when it is lived medically). And thus in the previous example *est* becomes substantive because of the addition of *miserē* which constitutes the predicate of the proposition.

Dum servitur libidini (while one is enslaved to passions) says *dum servitus exhibetur libidini* (while one is made a slave of his passions).

From this it may be concluded, it seems, that our language (French) does not properly speaking have impersonals, for when we say *il faut* (it is necessary), *il est permis* (it is permitted), *il me plaît* (it pleases me), the *il* (it) properly speaking is a relative pronoun which always takes the place of the nominative of the verb, which ordinarily comes after it in the construction, as when I say *il me plaît de faire cela* (it pleases me to do that), that is to say *il de faire* (literally, it to do) for *l'action* or *le mouvement de faire cela me plaît* or *est mon plaisir* (the action [or] the movement of doing that pleases me [or] is my pleasure). And consequently this *il*, which few people have understood, it seems to me, is only a species of pronoun, for *id* (that), which takes the place of the nominative that is understood or included in the meaning, and represents it. So that it is properly speaking taken from the Italian article *il*, for which the French says *le* (the); or from the Latin pronoun *ille* (that), from whence we also take our third person pronoun *il* (he, she, it): *il aime* (he loves), *il parle* (he speaks), *il court* (he runs), etc.

For the impersonal passives like *amatur* (it is loved), *curritur* (it is run), which are expressed in French by *on aime* (it is loved, one loves), *on court* (it is run, one runs), it is certain that these modes of speaking in our language are still less impersonal, although indefinite; for Mr. de Vaugelas has already noted that this *on* is used here to take the place of *homme* (man), and consequently it takes the place of the nominative of the verb.[4] Concerning this one can consult the *New Latin Method*, Chapter 5, concerning the impersonal verbs.[5]

And it can be further noted that the verbs which concern the effects of nature, like *pluit* (it rains), *ningit* (it snows), *grandinat*

[4] Vaugelas, "On, l'on, et t-on", 10.

[5] *New Latin Method*, Book VI, Section III, Chapter V, § II, "That the Verbs called Impersonals are not deprived of all the Persons we imagine, even in the most elegant languages", 124.

(it hails), can be explained by the same principles, in both Latin and French. For *pluit* is properly speaking a word in which, for the sake of abridgement, the subject, the affirmation, and the predicate were included, instead of saying *pluvia fit* (literally, rain happens) or *cadit* (falls), and when we say *il pleut* (it rains), *il neige* (it snows), *il grêle* (it hails), etc., *il* (it) there takes the place of the nominative, i. e. *pluie* (rain), *neige* (snow), *grêle* (hail), etc. which are included with their substantive verb *est* (is) or *fait* (makes or does), as if one would say *il pluie est* (literally, it rain is), *il neige se fait* (literally, it snow makes) for *id quod dicitur pluvia, est* (it which is called rain, is); *id quod vocatur nix, fit* (it which is called snow, happens), etc.

This may be better seen in the modes of speaking where French joins a verb with an *il*, like *il fait chaud* (it is hot), *il est tard* (it is late), *il est six heures* (it is six o'clock), *il est jour* (it is day), etc. For this is what could be said in Italian: *il caldo fà* (literally, the heat makes), although in actual usage one simply says, *fà caldo* (it is hot; literally, makes heat), or in Latin *aestus* or *calor est*, or *fit*, or *existit* (it is hot; literally, heat is [or] happens [or] exists). And consequently in French, *il fait chaud* (it is hot) is the same as *il chaud* (*il caldo*, Italian) or *le chaud se fait* (literally, the heat is made) in order to say *existit* (exists), *est* (is). Just as one says *il se fait tard* or in Italian *si fà tarde* (it grows late), that is to say, *il tarde* (*le tard ou le soir*) *se fait* (literally, the late afternoon or evening is made). Or as is said in some provinces, *il s'en va tard* (literally, it is going late) for *il tarde* (literally, it latens), *le tard s'en va venir*, i.e. the evening approaches. And similarly, *il est jour* (it is day), that is, *il jour*, or *le jour*, *est* (literally, it day, or the day, is); *il est six heures* (it is six o'clock), i. e. *il temps, six heures est* (literally, it time six o'clock is) or *le temps* or *la partie du jour appelée six heures est* (literally, the time or the part of the day called six o'clock, is), etc.

XX

OF PARTICIPLES

The participles are true adjectival nouns, and thus it would not be the place to speak of them here, if it were not for the connection that they have with verbs.

This connection consists, as we have said, in the fact that they signify the same thing as the verb, except for the affirmation, which is removed, and the distinction of three different persons, which goes along with the affirmation. That is why in restoring [the affirmation], the same thing is done with the participle as is done with the verb. Thus *amatus sum* (I am loved) is the same thing as *amor* (I am loved); and *sum amans* (I am loving), the same thing as *amo* (I love, I am loving). This mode of speaking utilizing the participle is more common in Greek and Hebrew than in Latin, although Cicero sometimes uses it.

Thus what the participle retains of the verb is the attribute, and further, the designation of time or tense, there being participles of the present, the preterit, and the future, principally in Greek. But even this is not always seen, the same participle being joined often to all sorts of tenses. For example, the passive participle *amatus* (loved), which most grammarians take to be the preterit participle is often present and future, as in *amatus sum* (I am loved), and *amatus ero* (I will have been loved). And on the contrary, the present participle, such as *amans* (loving), is very often preterit; for example, *apri inter se dimicant, indurantes attritu arborum costas* (Pliny)[1] (boars fight amongst themselves, hardening their

[1] Pliny, *Natural History*, 8.212.

ribs by rubbing them on trees), that is, *postquam induravere* (after they have hardened), etc. See the *New Latin Method*, "Remarks Concerning Participles".[2]

There are active participles, and others which are passive. The active participles in Latin end in *-ans* and *-ens*, such as *amans* (loving), *docens* (teaching); the passive participles end in *-us*, such as *amatus* (having been loved), *doctus* (having been taught), although there are several of the latter which are active, namely those of deponent verbs, like *locutus* (having spoken). But there are again others which add to this passive signification [a compulsive sense] *that this must be, that it is necessary that this be*. These are the Latin participles which end in *-dus*, for example, *amandus* (which must be loved), although sometimes this latter signification is lost almost entirely.

It is proper to the participles of active verbs that they signify the action of the verb, as it is in the verb, i. e. in the course of the action itself. This is in contrast to verbal nouns, which also signify actions, but signify them rather as habits than as acts. From whence it comes that participles govern the same cases as the verb, such as *amans Deum* (loving God) in contrast to the verbal nouns which govern only the cases that nouns do, such as *amator Dei* (lover of God). And the participle itself is included in this latter rule for nouns when it signifies more the habit than the act of the verb, because it then has the nature of a simple verbal noun, as for example, *amans virtutis* (loving of virtue).

[2] This reference is not given in the first edition of 1660. *New Latin Method*, Book VI, Section IV, Chapter III, "Remarks on the Participles", § 1 "Difference between a Participle and a Noun Adjective", § II, "Whether every Participle may express every difference of time: and first of the Participle in -ns", 134ff.

XXI

OF GERUNDS AND SUPINES

We have just seen that by removing the affirmation from verbs one forms active and passive participles, which are adjectival nouns which govern the same cases as verbs, at least in the active voice.

But in Latin there are two additional substantive nouns [formed from verbs]. One is in *-um*, called a gerund, which has different cases: *-dum*, *-di*, *-do*; *amandum*, *amandi*, *amando* (loving; accusative, genitive, ablative), but which has only one gender and one number, in which respect it differs from the participle in *-dus*: *amandus*, *amanda*, *amandum* (to be loved; masculine, feminine, neuter).

The second is in *-tum*, called the supine, which also has two cases: *-tum*, *-tu*; *amatum*, *amatu*[1] (accusative, ablative) but which has no difference in gender or number, in which respect it differs from the participle in *-us*: *amatus*, *amata*, *amatum* (masculine, feminine, neuter).

I am well aware that grammarians are at a loss to explain the nature of the gerund, and that some of the more capable ones have believed that it was a passive adjective, which has as a substantive the infinitive of the verb,[2] so that these grammarians

[1] The supine form of *amo* does not appear in extant literature, but is cited twice by Priscian. Only about a hundred Latin verbs are known to have supine forms. Thus, while it is probable that a sentence such as *illa est facilis amatu* (she is easy to love), represents acceptable Latin usage, a phrase such as *mirabile dictu* (marvelous to relate), which is a relatively common type, is a much better example of the typical way in which the ablative of the supine is used.

[2] In the *New Latin Method*, Section IV, "Remarks on the Gerunds, Supines, and Participles", Chapter I, "Remarks on the Gerunds", 125, Lancelot attributes this theory to Sanctius, Scioppius, and Vossius.

pretend, for example, that *tempus est legendi libros* or *librorum* (because either can be used) (it is time for reading books) is as if it were *tempus est legendi* τοῦ *legere libros* or *librorum* (it is time for the reading of books being read) so that there were two statements, namely, *tempus legendi* τοῦ *legere* (time for the reading being read), which is adjectival and substantive, as if it were *legendae lectionis* (of reading being read), and second, *legere libros* (the reading of books) which is of the form of a verbal noun which then governs the case of its verb, or which, as a substantive, governs the genitive, as when one says *librorum* (of books, genitive) for *libros* (books, accusative). But, all things considered, I do not see this move as necessary.

For first, as grammarians say of *legere* that it is a substantive verbal noun, which, as such, can govern either the genitive or even the accusative, so that the ancients said, *curatio hanc rem*[3] (concern over this matter, accusative); *quid tibi hanc tactio est*? (Plautus)[4] (literally, why the touching her on your part; her, accusative), I say the same thing of *legendum*: i. e. that it is a substantive verbal noun, as much so as *legere*, and which consequently can do all that is attributed to *legere*.

Second, one has no basis for saying that a word is understood when it is never expressed, and when further one cannot express it without appearing absurd. Now, there has never been seen an infinitive joined to its gerund, and if one said *legendum est legere* (reading [literally, to read] must be read), this would appear thoroughly absurd. Therefore, etc.

Third, if the gerund *legendum* were a passive adjective, it would be no different from the participle *legendus*. Why, then, did the ancients, who knew their own language, make a distinction between gerunds and participles?

I therefore believe that the gerund is a substantive noun which is always active, which differs from the infinitive considered as a noun only because it adds to the signification of the action of the

[3] Plautus, *Amphitruo*, 518.

[4] Plautus, *Poen.*, 1308. Brekle, II, 33, cites the reference to *Casina*, 406, "Quid tibi istunc tactiost?"

verbs another signification of necessity or obligation, that is, of action which must be done. This is what it seems to me was originally intended to be indicated by the word *gerund* which is derived from *gerere* (to do). From whence it comes that *pugnandum est* (one must fight) is the same thing as *pugnare oportet* (it is necessary to fight), and French, which does not have the gerund, expresses it by using the infinitive and a word which signifies obligation: *il faut combattre* (it is necessary to fight).

But since words do not always conserve all the force intended for them when they were invented, the gerund in *-dum* often loses the force of *oportet* (it is necessary), and only retains that of the action of the verb: *quis talia fando temperet ā lacrymis*[5] (who in saying such things would restrain himself from tears), which is to say *in fando* (in saying) or *in fari talia* (literally, in to say such things).

Regarding the supine, I am in accord with these same grammarians, that it is a substantive noun which is passive whereas the gerund, I feel, is always active. And on this one may consult what has been said in the *New Method for Latin*.[6]

[5] Vergil, *Aeneid*, 2. 6-8.

[6] *New Latin Method*, Book VI, Section IV, "Remarks on the Gerunds, Supines and Participles", Chapter I, "Remarks on the Gerunds", Chapter II, "Remarks on the Supines", 125-134. In earlier editions of the *New Latin Method* prior to the *Grammar*, Lancelot, by his own account, had followed the opinion of Sanctius, Scioppus, and Vossius (*New Latin Method*, 125). The criticisms which he and Arnauld advanced concerning this theory in this chapter of the *Grammar* led him to revise his discussion of gerunds in later editions of the *New Latin Method*, where he asserts that "this supposition [of Sanctius, et al.] do[es] not seem to be necessary, as we have already observed in the General Grammar" (126). He then proceeds to enumerate the arguments cited in the *Grammar*.

XXII

OF THE AUXILIARY VERBS IN THE VERNACULAR LANGUAGES

Before finishing with the verbs, it appears necessary to say a word about a thing which, being common to all the vernacular languages of Europe, merits being treated in general grammar, and I am also very glad to speak of it in order to demonstrate a sample of French grammar.

I refer to the use of certain verbs called *auxiliaries* because they help the other verbs form different tenses when combined with the preterit participle of each verb.

There are two such auxiliary verbs, which are common to all these languages — *to be* and *to have*. Some languages have still others, such as the German *werden* (to become) or *wollen* (to want or will), the present tense of which, when joined to the infinitive of each verb, forms the future. But it will suffice to speak here of the two principal verbs, *être* (to be) and *avoir* (to have).

Être (to be)

As far as the verb *être* is concerned, we have said that it forms all the passives, together with the [past] participle of the active verb, which is then taken passively: *je suis aimé* (I am loved); *j'étais aimé* (I was loved), etc., the reason for which is very easy to provide, namely that we have said that all the verbs, outside of the substantive, signify affirmation together with a certain attribute which is affirmed. From whence it follows that the passive verb, like *amor* (I am loved) signifies the affirmation of passive love, and in consequence, since *aimé* (loved) also signifies this

passive love, it is clear that joining to it the substantive verb which indicates the affirmation, *je suis aimé* (I am loved), *vous êtes aimé* (you are loved), must signify respectively the same thing as *amor*, *amaris* in Latin. And the Latins themselves make use of the verb *sum* (I am) as an auxiliary in all the passive preterits and all the tenses which depend on them, *amatus sum* (I have been loved), *amatus eram* (I had been loved), as do the Greeks also in most verbs.

But this same verb *être* is often an auxiliary in another more irregular manner, of which we shall speak after having explained verbs.

Avoir (to have)

The other auxiliary verb, *avoir* (to have) is much stranger, and it is very difficult to give a rational account of it.

We have already said that all verbs in the vernacular languages have two preterits, one indefinite, called the aorist, and the other definite. The first is formed like any other tense: *j'aimai* (I loved), *je sentis* (I felt), *je vis* (I saw).

But the other is only formed from the preterit participle, such as *aimé* (loved), *senti* (felt), *vu* (saw), and the verb *avoir: j'ai aimé* (I have loved), *j'ai senti* (I have felt), *j'ai vu* (I have seen).[1]

And this is true not only of this preterit tense, but of all the other tenses which in Latin are formed from the preterit, such as *amavi* — *j'ai aimé* (I have loved); *amaveram* — *j'avais aimé* (I had loved); *amaverim* — *j'aurais aimé* (I would have loved); *amavissem* — *j'eusse aimé* (I had loved, subjunctive); *amavero* — *j'aurai aimé* (I will have loved); *amavisse* — *avoir aimé* (to have loved).

And the verb *avoir* itself has these sorts of tenses only by using itself as its own auxiliary together with its participle *eu* (had); *j'ai eu* (I have had); *j'avais eu* (I had had); *j'eusse eu* (I had had, subjunctive), *j'aurais eu* (I would have had). But neither the

[1] As indicated above, Chapter XV, n. 1, Arnauld and Lancelot continue to use the terms "definite" and "indefinite" in a manner directly opposed to the current usage.

preterit, *j'avais eu* (I had had) nor the future *j'aurai eu* (I will have had) are auxiliaries of other verbs. For one says properly *sitôt que j'ai eu dîné* (as soon as I had dined), *quand j'eusse eu* or *j'aurais eu dîné* (when I would have dined). But one does not say *j'avais eu dîné* (I had had dined) or *j'aurai eu dîné* (I will have had dined), but only *j'avais dîné* (I had dined), *j'aurai dîné* (I will have dined), etc.

The verb *être* similarly takes the same tenses from *avoir* with its own participle, *été* (been): *j'ai été* (I have been), *j'avais été* (I had been), etc.

In this French is different from others; the Germans, the Italians, and the Spanish make the verb *to be* auxiliary to itself in these tenses, for they say in Italian *sono stato* (literally, I am been), which the Walloons, who speak poor French, imitate.

Now those cases where the tenses of the verb *avoir* serve to form other tenses of other verbs can be found in the following table.

Tenses of the verb *avoir*
Principal parts:
avoir (to have), *ayant* (having), *eu* (had)

Tenses of other verbs which are formed with the forcgoing as auxiliaries

Present	*j'ai* (I have) / *j'aie* (I have, subjunctive)	Preterit perfect	1. *J'ai dîné* (I have dined) 2. *quoique j'aie dîné* (although I have dined)
Imperfect	*j'avais* (I had) / *j'eusse* (I had, subjunctive) / *j'aurais* (I would have)	Pluperfect	1. *j'avais dîné* (I had dined) 2. *si j'eusse dîné* (if I had dined) 3. *quand j'aurais dîné* (when I would have dined) 4. *quand j'eus dîné* (indefinite) (When I had dined) 5. *quand j'ai eu dîné* (definite) (when I had dined) 6. *quand j'eusse* or *j'aurais eu dîné*, conditional (when I had or would have dined)
Aorist	*j'eus* (I had)		
Simple preterit perfect	*j'ai eu* (I have had)		
Preterit conditional	*j'eusse eu* (I had had, subjunctive) / *j'aurais eu* (I would have had)		
Future	*j'aurai* (I will have)	Future perfect or of the subjunctive	*quand j'aurai dîné* (when I will have dined)
Present infinitive	*avoir* (to have)	Infinitive of the preterit	*après avoir dîné* (literally, after to have dined)
Present participle	*ayant* (having)	Preterit participle	*ayant dîné* (having dined)

If this mode of speaking which is common to all the vernacular languages and which appears to have been derived from German is strange in itself,[2] it is no less so in the construction with nouns which are joined to those preterit tenses which are formed by these auxiliary verbs and the participle.

For, first, the nominative of the verb does not cause any change in the participle. That is why it is said in the plural as well as the singular and in the masculine as well as the feminine, *il a aimé* (he has loved), *ils ont aimé* (they [masculine] have loved), *elle a aimé* (she has loved), *elles ont aimé* (they [feminine] have loved), and not *ils ont aimés*, *elle a aimée*, *elles ont aimées*.

Second, the accusative which this preterit governs also does not cause any change in the participle when it follows the participle, as it most commonly does. That is why it is necessary to say: *il a aimé Dieu* [masculine] (he has loved God), *il a aimé l'Église* [feminine] (he has loved the Church), *il a aimé les livres* [masculine, plural] (he has loved books), *il a aimé les sciences* [feminine, plural] (he has loved the sciences), and not *il a aimée l'Église*, or *aimés les livres*, or *aimées les sciences*.

Third, when this accusative precedes the auxiliary verb (which rarely happens in prose except in the case of the accusative of the relative or of the pronoun) or even when it follows the auxiliary verb but precedes the participle (which rarely happens save in verse), then the participle must agree in gender and number with this accusative. Thus it is necessary to say: *la lettre que j'ai écrite* (the letter which I have written), *les livres que j'ai lus* (the books which I have read), *les sciences que j'ai apprises* (the sciences which I have learned), for the *que* (which) stands for *laquelle* in the first example, for *lesquels* in the second, and for *lesquelles* in the third. Similarly, *j'ai écrit la lettre et je l'ai envoyée* (I have written the letter and I have sent it), etc., *j'ai acheté des livres, et je les ai lus* (I have bought some books and I have read them). Similarly in verse one says, *Dieu dont nul de nos maux n'a les grâces bornées* (God whose grace none of our evils has limited),

[2] I.e. the use of auxiliaries, which Greek and Latin lack.

and not *borné*, because the accusative *grâces* precedes the participle, although it follows the auxiliary verb.

There is nevertheless an exception to this rule, according to Mr. de Vaugelas, which is that the participle remains not declinable, although it is after the auxiliary verb and its accusative, when it precedes its nominative, such as: *la peine que m'a donné cette affaire* (the misery which this affair has given me); *les soins que m'a donné ce procès* (the care which this lawsuit has given me), and so forth.[3]

It is not easy to give a rationale for these modes of speaking; here is what has occurred to me about them in French, which I am principally considering here.

All the verbs in French have two participles, one ending in *-ant*, and the other ending in *-é*, *-i*, *-u*, according to the different conjugations, ignoring here the irregular verbs. Thus for example *aimant* (loving), *aimé* (loved); *écrivant* (writing), *écrit* (written);[4] *rendant* (rendering), *rendu* (rendered).

Now two things can be considered regarding participles: the first, their being true adjectival nouns, subject to gender, number, and case; the second, when they are active, their governing the same cases as the verb: *amans virtutem* (loving virtue, accusative). When the first condition is lacking, the participles are called *gerunds*, such as *amandum est virtutem* (one must love virtue).[5] When the second condition is lacking, it is then said that the active participles are verbal nouns rather than participles.[6]

This being supposed, I say that our two participles, *aimant* (loving) and *aimé* (loved), in so far as they govern the same cases as the verb, are gerunds rather than participles.[7] For Mr. de Vaugelas has already noted that the participle ending in *-ant*, when it governs like a verb, has no feminine, and that one does not say,

[3] Vaugelas, "Belle et curieuse exception à la Reigle des preterits participes", 492*. (The asterisk indicates a page number which appeared twice in the first edition.)

[4] In the orthography of Port-Royal, this was "*ecry*".

[5] See above, Chapter XXI.

[6] See above, Chapter XX, last paragraph.

[7] Since they are not subject to variation in gender and number.

for example, *j'ai vu une femme lisante l'Écriture* (I have seen a woman reading Scripture). If this is sometimes put in the plural, *j'ai vu des hommes lisants l'Écriture* (I have seen men reading Scripture),[8] I believe that this has come from a mistake which has not been noticed, in virtue of the fact that the sound of *lisant* and *lisants* is almost always the same, neither the *t* nor the *s* being pronounced ordinarily. And I also think that *lisant l'Écriture* is there instead of *en lisant l'Écriture*, *in τὸ legere scripturam* (in [the] reading the Scripture); so that this gerund in *-ant* signifies the action of the verb, in the same way as does the infinitive.

Now I believe that the same thing must be said of the other participle *aimé* (loved); namely that when it governs the cases that the verb does, it is a gerund, and not susceptible to differences in gender and number, and that then it is active, and differs from the participle or rather from the gerund in *-ant* only in two things. The first is that the gerund in *-ant* comes from the present, and the gerund in *-é*, *-i*, *-u*, comes from the past. The second is that the gerund in *-ant* exists totally by itself, or rather with the particle *en* (in) understood, whereas the other is always accompanied by the auxiliary verb *avoir* or else by the verb *être*, which sometimes takes the place of *avoir*, as we shall explain later. For example, *j'ai aimé Dieu* (I have loved God) etc.

But this latter participle, beyond its usage as an active gerund, has another use, which is that of being a passive participle, and then it takes on the two genders and the two numbers, according to which it agrees with the substantive, and does not govern cases at all; and it is according to this usage that it forms all of the passive tenses with the verb *être*: *il est aimé* (he is loved); *elle est aimée* (she is loved); *ils sont aimés* (they [masculine] are loved); *elles sont aimées* (they [feminine] are loved).

Thus, in order to resolve the difficulty presented, I say that in the following modes of speaking: *j'ai aimé la chasse* (I have loved the hunt), *j'ai aimé les livres* (I have loved books), *j'ai aimé les sciences* (I have loved the sciences), the reason why one does not say *j'ai*

[8] Vaugelas, "Des Participes actifs", 426-433, especially 429.

aimée la chasse [*chasse* being feminine] or *j'ai aimés les livres* [*livres* being masculine plural] is that the word *aimé* governs cases like a verb, is a gerund, and has neither gender nor number.

But in these other modes of speaking, *la chasse qu'il a* AIMÉE (the hunt that he has loved), *les ennemis qu'il a* VAINCUS (the enemies that he has vanquished) or *il a défait les ennemis, il les a* VAINCUS (he has defeated the enemies, he has vanquished them), the words *aimée*, *vaincus* are not then considered as governing anything, but rather as being themselves governed by the verb *avoir*, as if one were to say *quam habeo amatam* [*amatam*, participle, agrees with *quam*] (whom I have loved), *quos habeo victos* [*victos*, participle, agrees with *quos*] (whom I have conquered). And that is why being taken as passive participles which have gender and number, they must agree in gender and number with the substantive nouns, or the pronouns with which they are related.

And what confirms this reasoning is that when the preterit of the verb is preceded by the relative or pronoun which it governs and is followed by another thing that it also governs, then it again becomes a gerund, and is not declinable. For, whereas one must say *cette ville que le commerce a enrichie* (this city which trade has enriched), one must also say *cette ville que le commerce a rendu puissante* (this city which commerce has made powerful) and not *rendue* [feminine] *puissante*, because *rendu* governs *puissante*, and thus is a gerund. And as for the exception of which we have spoken earlier in this chapter, *la peine que m'a donné cette affaire*, etc. (the misery which this affair has given me),[9] it seems that this exception only came from the fact that being accustomed to making the participle a gerund and not declinable when it governs something, and since it ordinarily governs the nouns which follow it, people considered *affaire* here as if it were the accusative governed by *donné*, although it was in fact the nominative subject, because it is in the position that this accusative ordinarily takes in French, which loves nothing as much as neatness in discourse

[9] See above, 161.

and in the natural arrangement of words in its expressions. This will be confirmed further by what we will say about some instances where the auxiliary verb *être* takes the place of *avoir*.

Two instances where the auxiliary verb être *takes the place of* avoir

The first case is that of all active verbs with the reflexive *se*, which indicates that the action has as a subject or as an object the thing which acts: *se tuer* (to kill oneself), *se voir* (to see oneself), *se connaître* (to know oneself). For then the preterit and the other tenses which depend on it are formed not with the verb *avoir*, but with the verb *être*: *il s'est tué* (he killed himself) and not *il s'a tué*; *il s'est vu* (he saw himself), *il s'est connu* (he knew himself). It is difficult to guess from where this usage has come, for the Germans do not have it, making use of the verb *to have* ordinarily in this situation, although it was apparently from them that the use of the auxiliary verbs for the active preterit is derived. One can nevertheless say that since the action and the passion are found in this situation in the same subject, it was considered desirable to make use of the verb *être*, which marks passion more so than does *avoir*, which would have only marked action, and that it is as if one said *il est tué par soi-même* (he was killed by himself).

But it is necessary to note that when the participle, like *tué* (killed), *vu* (seen), *connu* (known), is only related to the reflexive *se*, even though the *se* is duplicated, it precedes and follows [the participle], as when one says, *Caton s'est tué soi-même* (Cato himself has killed himself); then this participle agrees in gender and number with the persons or things of which one is speaking: *Caton s'est tué* [masculine, singular] *soi-même* (Cato himself has killed himself); *Lucrèce s'est tuée* [feminine, singular] *soi-même* (Lucretia herself has killed herself); *les Saguntins se sont tués* [masculine, plural] *eux-mêmes* (the Saguntines themselves have killed themselves).

But if this participle governs something other than the reflexive, as when I say *Œdipe s'est crevé les yeux* (Oedipus has put out his

own eyes), the participle governing in this way becomes an active gerund, and no longer has gender or number, so that it is necessary to say *cette femme s'est crevé les yeux* (this woman has put out her own eyes), *elle s'est fait peindre* (she has had herself painted [in a portrait]); *elle s'est rendu la maîtresse* (she made herself mistress); *elle s'est rendu Catholique* (she has made herself a Catholic).

I am well aware that these last two examples are contested by Mr. de Vaugelas, or rather by Malherbe, whose opinion on this point de Vaugelas nevertheless recognizes as not having been universally received.[10] But the reason that they give makes me judge them mistaken, and affords the opportunity for analysis of other modes of speaking where there is more difficulty.

De Vaugelas and Malherbe claim that it is necessary to distinguish instances where participles are active from instances where they are passive. This is true; and they further say that when the participles are passive, they are [declinable and that when they are active, they are][11] not declinable, which is also true. But I do not see that in the following examples: *elle s'est rendu* or *rendue la maîtresse* (she has made herself mistress), *nous nous sommes rendu* or *rendus maîtres* (we made ourselves masters), it can be said that the participle *rendu* is passive, it being clear on the contrary that it is active, and what seems to have deceived them is that it is indeed true that these participles are passive when they are joined to the verb *être*, as when one says, *il a été rendu maître* (he has been made master), but this is only so when the verb *être* is put for itself, and not when it takes the place of *avoir*, as we have shown it does when it appears with the reflexive pronoun *se*.

[10] Vaugelas, "De l'usage des participes passifs dans les preterits", 175-181, especially 178ff., where the discussion of Malherbe's view begins. François de Malherbe (1555-1628) is well-known as one of the great defenders of "purity" in the French language, purity being defined in terms of the language of the Paris aristocracy. For a discussion of Malherbe and his influence, see Brunot, *Histoire de la langue française*, Tome III, 1ff. The entire discussion from here to the end of the chapter differs significantly from the edition of 1660.

[11] Following the edition of Bailly. The edition of 1676 omits the bracketed phrase, which omission violates the sense of the passage.

Thus the observation of Malherbe is only appropriate to other modes of speaking, where the signification of the participle, although indeed coupled with the reflexive pronoun *se*, nevertheless seems passive, as when one says, *elle s'est trouvé* or *trouvée morte* (she was found dead). And it seems that reason would require that the participle be declinable, without toying with this other observation of Malherbe, which is to see whether this participle is followed by a noun or another participle, for Malherbe holds that it would not be declinable when it is followed by another participle, and thus it would be necessary to say, *elle s'est trouvé morte*; and declinable when it is followed by a noun, for which I see scarcely any basis.

But what could be noted here is that it seems that it would often be doubtful whether the participle is active or passive in the cases of the modes of speaking using the reflexive, as when one says: *elle s'est trouvé* or *trouvée malade* (she has found herself ill); *elle s'est trouvé* or *trouvée guérie* (she has found herself cured). For this can have two meanings: one, that she has been found ill or cured by others, and second, that she herself found herself ill or cured. In the first sense, the participle would be passive, and in consequence, declinable. In the second, it would be active, and in consequence, not declinable. And this remark is indubitable, since, when the phrase sufficiently determines the meaning, it also determines the construction. One says, for example, *quand le médecin est venu, cette femme s'est trouvée morte* (when the doctor arrived, this woman was found dead), and not *trouvé*, because this says that she has been found dead by the doctor, and by those who were present, and not that she herself found that she was dead. But if I say on the contrary, *Madame s'est trouvé mal ce matin* (Madame found herself ill this morning), it is necessary to say *trouvé* and not *trouvée*, because it is clear that one can say that it is Madame herself who found and felt that she was ill, and that consequently the phrase is active in its meaning. This harks back to the general rule that we have given, which is to make the participle a gerund and not declinable only when it governs something, and always declinable when it does not govern anything.

I am well aware that there is nothing firmly settled in French concerning these last modes of speaking, but I see nothing which would be more useful, it seems to me, for fixing these matters, than to settle on this factor of governing, at least in all the instances where usage is not entirely determined and assured.

The other instance where the verb *être* forms the preterits instead of *avoir* is in some intransitive verbs, i.e. those where the action does not pass outside of the agent, like *aller* (to go), *partir* (to depart), *sortir* (to leave), *monter* (to ascend), *descendre* (to descend), *arriver* (to arrive), *retourner* (to return). For one says, *il est allé* (he has gone), *il est parti* (he has departed), *il est sorti* (he has left), *il est monté* (he has ascended), *il est descendu* (he has descended), *il est arrivé* (he has arrived), *il est retourné* (he has returned), and not *il a allé*, *il a parti*, etc. From whence it also comes that there the participle agrees in number and in gender with the nominative of the verb: *cette femme est allée à Paris* (this woman has gone to Paris), *elles sont allées* (they [feminine] have gone), *ils sont allés* (they [masculine] have gone), etc.

But when some of these intransitive verbs become transitive and properly active, which happens when one joins to them some word which they must govern, they once again take the verb *avoir*, and the participle, being a gerund, no longer varies in gender or number. Thus one must say: *cette femme a monté la montagne* (this woman has climbed the mountain), and not *est monté* or *est montée* or *a montée*. And if one sometimes says *il est sorti le royaume* (he has left the kingdom) [using the auxiliary verb *être*], it is by an ellipsis, for it stands for *hors le royaume* (out of the kingdom).

XXIII

OF CONJUNCTIONS AND INTERJECTIONS

The second sort of word which signifies the form of our thoughts and not properly the objects of our thoughts is the conjunction, like *et* (and), *non* (not), *vel* (or), *si* (if), *ergo* (therefore). For if one reflects carefully on these, it will be seen that these particles only signify the very operation of our minds that joins or separates things, that denies them, that considers them absolutely or conditionally. For example, there is nothing in the world outside of our minds which answers to the particle *not*; but it is clear that it only marks the judgment that we make that one thing is not another.[1]

Similarly, *ne*, which is the particle of interrogation in Latin, as in *aïs-ne*? (do you say?), has no object outside the mind, but only marks the movement of the soul, by which we wish to know a thing.

And this explains why I have not spoken of the interrogative pronoun, *quis*, *quae*, *quid?* (who, what?, masculine, feminine, neuter), because it is nothing more than a pronoun to which the signification of *ne* is added; that is to say, which, beyond taking the place of a noun like the other pronouns, further marks this movement of the soul which desires to know something and which demands to be instructed about it. That is why we see that different things are used to indicate this movement. Sometimes this is only made known through vocal inflection, which in writing is

[1] This argument as it stands is circular. Clearly a true negative judgment is made true by *something*. The nature of that something is of course far from clear, and has been a source of philosophical perplexity since Plato's *Sophist*.

indicated by a small mark which is called a question mark, and which is formed thus: (?).

In French, the same thing is signified by the pronouns *je* (I), *vous* (you), *il* (he, it), *ce* (this), placed after the persons of the verbs, whereas in the ordinary modes of speaking, these pronouns come before the verb. For if I say: *j'aime* (I love), *vous aimez* (you love), *il aime* (he loves), *c'est* (this is), that signifies affirmation; but if I say *aimé-je?* (do I love?), *aimez-vous?* (do you love?), *aime-t-il?* (does he love?), *est-ce* (is this?), that signifies interrogation, from whence it follows, by the way, that it is necessary to say *sens-je?* (do I feel?), *lis-je?* (do I read?), and not *sentez-je?*, *lises-je?*, because it is always necessary to take the person that one wishes to use, which is in this case the first person, *je sens* (I feel), *je lis* (I read), and transpose its pronoun in order to make it into a question.

And one must be careful that when the first person of the verb ends with a feminine *e*, like *j'aime* (I love), *je pense* (I think), this feminine *e* is changed into a masculine *e* in the interrogative form, owing to the *je* which follows it and whose *e* is also feminine, because French does not allow two successive words to end in a feminine *e*. Thus it is necessary to say *aimé-je?* (do I love?), *pensé-je?* (do I think), and on the contrary it is necessary to say *aimes-tu?* (do you love?), *pense-t-il?* (does he think?), *manque-t-il?* (does he lack?), and so forth.

Of interjections

Interjections are also words which do not signify anything outside of us. These are only instances of the natural rather than artificial [significant] voice, which indicate the emotions of our soul, like ah, oh, ha, alas, etc.[2]

[2] The distinction between natural and artificial signification enjoys a long history, dating back to the Sophists. The direct source of the medieval and Renaissance tradition was Aristotle, *De Interpretatione*, Chapters 1 and 2. See Bernard E. Rollin, *The Distinction Between Natural and Conventional Meaning: An Examination*, forthcoming in the *Approaches to Semiotics* series (Mouton and Co.), Chapter I.

XXIV

OF SYNTAX, OR THE CONSTRUCTION OF WORDS PUT TOGETHER

There remains to be said a word about syntax, or the construction of words put together, about which it will not be difficult to give some general notions according to the principles we have established.

Syntax is generally distinguished into two parts: agreement, when words ought to agree with one another, and government, when one of two words causes a variation in the other.

The first, for the most part, is the same in all languages, because it is a natural result of what is in use nearly everywhere to better distinguish discourse.

Thus the distinction of two numbers, singular and plural, has necessitated making the substantive agree with the adjective in number, that is to say, putting one of the words in the singular or plural when the other is. For since the substantive is the subject which is indicated confusedly, albeit directly, by the adjective, then if the substantive word marks several things, there are several subjects which share the characteristic marked by the adjective, and consequently the adjective must be in the plural: *homines docti*, *hommes doctes* (learned men).

The distinction of feminine and masculine has similarly necessitated putting substantives and adjectives into the same gender, or else putting both into the neuter in those languages which have a neuter; for it was indeed only for this purpose that genders were invented.

Verbs, similarly, ought to agree in number and person with nouns and pronouns. If one encounters something apparently

contrary to these rules, it is by a figure of speech, that is to say, by some word being understood, or else by considering the thoughts [that the words stand for] rather than the words themselves, as we shall see later.

The syntax of government, on the contrary, is almost totally arbitrary, and for this reason is very different in all languages. Some languages effect governing according to case; the others make use only of small particles which take the place of cases and which only indicate a few of these cases, as French and Spanish only have *of* and *to* to indicate the genitive and the dative respectively, while Italian adjoins *da* for the ablative. The other cases do not have any particles, but rather the simple article, which is not even always found.

For more on this subject, what has been said earlier in this treatise concerning prepositions and cases should be consulted.

But it is well to note some general maxims which are of major use in all languages.[1]

The first is that there is never a nominative which lacks a relationship to some verb either expressed or understood, because the purpose of speech is not only to indicate conception, but also to express what is thought about what is conceived, and this latter purpose is what is marked by the verb.

The second is that there is also no verb which lacks its nominative, either expressed or understood, because the nature of the verb being affirmation or assertion, it is necessary that there be something of which one affirms, this being the subject of the nominative of the verb, although before infinitives it is in the accusative: *scio Petrum esse doctum* (I know Peter [him] to be learned).

[1] These rules are basically derived from the *New Latin Method*, where Lancelot discusses a series of general maxims, including the first four discussed in this chapter of the *Grammar*. In the *Grammar*, however, these rules are discussed in the part of the chapter dealing with regular syntax, while in the *New Latin Method* they are dealt with in the section on figurative syntax, in the chapter on ellipsis. See Book VII, "Of Figurative Syntax", Chapter I, "Of the first figure called Ellipsis", 166ff. Lancelot cites Sanctius as the source of his discussion (167).

The third is that there can be no adjective which is not related to a substantive, because the adjective confusedly indicates a substantive, namely the subject of the characteristic which is marked distinctly by this adjective: *doctus* (learned) is related to someone who is learned.[2]

The fourth is that there is never a genitive in discourse which is not governed by another noun. For since this case always marks something like the possessor, it is necessary that it be governed by the thing possessed. This is why no verb properly governs the genitive, either in Greek or in Latin, as is made clear in the *New Methods* for these languages.[3] This rule can be applied to the vernacular languages with greater difficulty, because the particle *de*, which is the mark of the genitive, is often put for the preposition *de*, i. e. *ex* (out of).

The fifth maxim is that the case which a verb is to govern is often chosen according to the caprice of custom from among the various sorts of relationships which are inherent in the cases, which choice does not change the relationship which is specific to each case, but rather demonstrates that custom has been able to choose this or that case as it pleases.

Thus some say in Latin *juvare aliquem* (to aid someone; accusative), and some say *opitulari alicui* (to aid someone; dative), although these are two verbs for *to aid*, because the Latins chose to regard the word which the former verb governs as the term where the action takes place, and the word which the latter governs as an instance of attribution, to which the action of the verb was related.

Thus in French one says *servir quelqu'un* (to serve someone), and *servir à quelque chose* (to serve for something).

Thus in Spanish, the majority of active verbs governs the dative or the accusative indifferently.

Thus the same verb can govern different cases, especially when one admixes cases governed by prepositions, like *praestare alicui* or *aliquem* (to surpass someone; dative or accusative).

[2] See above, Part II, Chapter II, last paragraph.

[3] See *New Latin Method*, Book V, Rule X, 21ff; Book VII, Maxim VII, 172-173; *New Greek Method*, Book VII, Rule IX, 351ff., especially 354.

Thus one says, for example, *eripere morti aliquem* (to snatch someone [accusative] from death [dative]) or *mortem alicui* (death [accusative] from someone [dative]) or *aliquem ā morte* (someone [accusative] from death [ablative]), and so forth.

Sometimes these different ways of governing have themselves the force of changing the meaning of the expression, according to the authorization of custom, since, for example, in Latin *cavere alicui* [dative] is *to look out for someone's interest*, but *cavere aliquem* [accusative] is *to beware of someone*. In this it is always necessary to consult the custom of the language in question.

Of the figures of construction[4]

What we have said earlier about syntax is sufficient to allow the understanding of its natural order, when all the parts of discourse are simply expressed, and where there are no extra words and no missing words, and where the discourse is in conformity with the natural expression of our thoughts.

But because men often follow the meaning of their thoughts rather than the words which are used to express them, and because often, in order to abbreviate, they omit something from discourse, or even because, considering elegance of style, they allow some word which seems superfluous, or they reverse the natural order of words — for all these reasons it has come about that four modes of speaking called *figurative* were introduced, which are like so many irregularities in grammar, although they are sometimes perfections and beautifications of language.

The mode which agrees more with our thoughts than with the words of discourse is called *syllepsis* or conception, as when

[4] As previously indicated, this discussion of the figures is derived from Sanctius. The account of figurative syntax is much more detailed in the *New Latin Method*, where an entire book is devoted to it (Book VII). Lakoff, "Review", *Language* 45, 352ff., argues that the discussion of ellipsis in the *New Latin Method* is the best evidence of transformational elements in the Port-Royal grammatical corpus. Lakoff further argues that since this notion is primarily derived from Sanctius, the Port-Royal grammarians are more Sanctian than Cartesian, contrary to Chomsky's claim.

I say *il est six heures* (it is six o'clock; literally, it is six hours) for, according to the words, it would be necessary to say *elles sont six heures* (they are six hours), as was indeed said formerly, and as one still says *ils sont six, huit, dix, quinze, hommes* (they are six, eight, ten, fifteen, men), etc. But, because we purport to indicate a precise time, and only one of these hours, namely the sixth, my thought, which is directed to this sixth hour without considering the actual words, causes me to say *il est six heures*, rather than *elles sont six heures.*

And this figure sometimes creates irregularities of gender, like *ubi est scelus qui me perdidit*? (where is the crime [neuter] which [literally, who, masculine] destroyed me?), of number, like *turba ruunt*[5] (the crowd rushes [literally, rush] along), and of both together like *pars mersi tenuere ratem* (some [literally, a part, feminine singular], though submerged [masculine plural], hung onto the ship), etc.

That which excises something from discourse is called *ellipsis* or omission. For example, sometimes the verb is understood, which is quite common in Hebrew, where the substantive verb is almost always understood. Sometimes the nominative is understood, as in *pluit* (it rains) for *Deus* or *natura pluit* (God or nature rains). Sometimes the substantive is understood while the adjective is expressed, for example, in *paucis te volo* where *verbis alloqui* is understood (I wish [to address] a few [words] to you). Sometimes the word which governs another word is understood, like *est Romae* (he is at Rome) instead of *est in urbe Romae* (he is in the city of Rome).[6] And finally, something which is governed is understood, as in the case of *facilius reperias* (*homines* is understood) *qui Romam proficiscantur quam qui Athenas* (Cicero) (you would more easily find [men] to go to Rome than [men] to go to Athens).

The mode of speaking which has more words than are required

[5] Ovid, *Heroides*, 1.88; 12.43.

[6] This example is incorrect, as the word *Romae* in the sentence *est Romae* is not genitive, as Arnauld and Lancelot assume, but locative.

is called *pleonasm* or abundance, like *vivere vitam* (to live a life), *magis major* (more greater), etc.

And that mode of speaking which reverses the natural order of discourse is called *hyperbaton* or reversal.

One can see examples of all these figures in the grammars of particular languages, and especially in the *New Methods* for Greek and Latin, where this is amply discussed.[7]

I add only that there is scarcely a language which uses fewer of these figures than French, because it is particularly fond of clarity and of expressing things as much as possible in the most natural and least encumbered fashion, although at the same time, French is second to none in either beauty or elegance.[8]

ADVERTISEMENT[9]

We have not spoken at all in this grammar of derived or compound words, about which there would be many interesting things to say, because this concerns the task of a general dictionary rather than a general grammar. But it is a pleasure to report that since the first printing of this book, another has appeared entitled *Logic or the Art of Thinking*, which being based on the same principles, is very useful for clarifying this book, and for proving several things which are treated here.

[7] *New Latin Method*, Book VII, Chapter VII, "Observations on figurative construction", 367ff.

[8] It is ironically fitting that this alleged "general grammar" should end with so blatantly ethnocentric a pronouncement.

[9] This advertisement does not appear in the first edition of 1660, since the first edition of the Logic appeared in 1662.

TRANSFORMATIONALISM AND THE PORT-ROYAL GRAMMAR

NORMAN KRETZMANN

In the last seven or eight years the Port-Royal *Grammar* has been discussed more often in the English-speaking world than at any other time since its publication more than three hundred years ago. The discussion began with and has centered around Noam Chomsky's claims that the *Grammar* anticipates some of the fundamental features of his own "generative grammar". Chomsky's radically innovative work in linguistics was not originally inspired by the Port-Royalists or the other "Cartesian" linguists of the past whom he cites with approval; presumably he did not even know their writings when he published the papers and monographs that began the Chomskyan revolution in linguistics.[1] But once he had learned of their work (initially through L. C. Rosenfield's *From Beast-Machine to Man-Machine*),[2] he described his own work and that of his followers as "a rediscovery of much that was well understood" (*CL* 1) in the seventeenth, eighteenth, and early nineteenth centuries. Regarding the Port-Royal *Grammar* (and *Logic*) in particular he has made especially strong and generous claims: "In many respects, it seems to me quite accurate, then,

[1] He says as much in describing his aims in *Cartesian Linguistics* [henceforth *CL*]: "... I will make no attempt to characterize Cartesian linguistics as it saw itself, but rather will concentrate on the development of ideas that have reemerged, *quite independently*, in current work" (*CL* 2; italics added). But see also *CL* 99-100, n. 75. John Searle provides an excellent nontechnical account of Chomsky's achievement in his article "Chomsky's Revolution"; cf. George Lakoff's reply, "Deep Language".

[2] I learned of his particular debt to this book in conversation with him in 1966.

to regard the theory of transformational generative grammar, as it is developing in current work, as essentially a modern and more explicit version of the Port-Royal theory" (*CL* 38-39).

Petty detractors sometimes make a perverted use of intellectual history in trying to show that some innovation is, after all, only the latest manifestation of a line of thought forgotten by everyone but themselves. The passage just quoted has the ring of that nothing-new-under-the-sun sort of denigration. And, as I shall try to show, it is based on just the sort of over-interpretation of the past that is typical of such belittling criticism. But in this case, of course, the passage expresses the judgment of the innovator himself and is in no way self-deprecatory or apologetic. Nor is Chomsky rummaging in the past in search of intellectual ancestors who might lend his work respectability. As John Lyons puts it, "Right or wrong, Chomsky's theory of grammar is undoubtedly the most dynamic and influential; ...Every other 'school' of linguistics at the present time tends to define its position in relation to Chomsky's views on particular issues" (*Chomsky*, 9).

The nature of Chomsky's homage to the past becomes clearer when one recognizes that his active interest in the history of linguistics is confined to theories described very broadly but acceptably as Cartesian. For, as he freely admits, his interest is not scholarly; it is partisan, motivated by his thorough-going opposition to behaviorism. In his attempt to reverse the conceptual orientation of the behavioral sciences he has been strongly attracted by the Cartesian theory of mind. That is not surprising. Nor is it surprising that when he finds "Cartesian" writers on language saying things of which he can approve he exaggerates both their Cartesianism and their Chomskyanism. Reformers regularly and legitimately make that sort of use of the past.

It may therefore seem a little beside the point to examine Chomsky's claims regarding the *Grammar* as if they had been made by a disinterested scholar and purported to be based on a close reading of the text.[3] For the same reason I think it is largely

[3] Hans Aarsleff's critical articles perhaps come closest to treating Chomsky's claims in just that way. Harry Bracken's article "Chomsky's Cartesianism"

irrelevant to Chomsky's own purposes to suggest that there are historical antecedents quite outside the Cartesian tradition that come far closer than the *Grammar* does to prefiguring the principles and methods of transformational grammar.[4] Yet I am going to do a little of both those things in this article. For, whatever may have motivated Chomsky's pilgrimage to Port-Royal, it invites one to look at the history of thought about language in circumstances that may make it easier to interest others in the enormous amount of research waiting to be done.

Chomsky's published references to the Port-Royal *Grammar* (and *Logic*) seem to have begun in 1964, in his *Current Issues in Linguistic Theory*.[5] But the most detailed claims are made in *Cartesian Linguistics* (1967) and restated in summary form in *Language and Mind* (1968; 14-18). In *Cartesian Linguistics* Chomsky organizes his discussion around four ideas important both to his "Cartesians" and to linguists now involved in the development and study of generative grammar.

The first of these four ideas is the creative aspect of language use: "human language, in its normal use, is free from the control of independently identifiable external stimuli or internal states and is not restricted to any practical communicative function, in contrast, for example, to the pseudo language of animals. ... The language provides finite means but infinite possibilities of expression constrained only by rules of concept formation and sentence formation, these being in part particular and idiosyncratic but in part universal, a common human endowment" (*CL* 29). Chomsky finds this idea clearly adumbrated in Descartes himself and developed in more or less detail by Cordemoy, Bougeant, and others. In *Language and Mind* (18), but not in *Cartesian Linguistics*, he at least suggests that Lancelot and Arnauld also had this idea

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is in part a reply to Aarsleff.

[4] Vivian Salmon's review of *CL* does the most thorough job of this sort I have seen. Chomsky's historical claims are sometimes unnecessarily strong and do require the kind of correction Salmon supplies.

[5] Pp. 15 and 16. See also *Aspects of the Theory of Syntax* (1965), 6-7, 117, 118, 137, 199, and 221; and "*De quelques constantes de la théorie linguistique*" (1966), 17.

when they described human speech as "this marvelous invention of composing from twenty-five or thirty sounds an infinite variety of words, which although not having any resemblance in themselves to that which passes through our minds, nevertheless do not fail to reveal to others all of the secrets of the mind, and to make intelligible to others, who cannot penetrate into the mind, all that we conceive and all of the diverse movements of our souls" (Pt. II, Ch. 1). Robin Lakoff, in her review of Brekle's 1966 edition of the *Grammar* (*LR*),[6] says expressly that in this passage the authors "recognize the creativity of language as an important linguistic property" and suggests that they recognize also that "a grammar has in it the possibility of recursion" (*LR* 345). But Lancelot and Arnauld are referring not to the infinite variety of *sentences* constructible out of a finite *vocabulary*, but to the infinite variety of *words* constructible out of a finite set of *speech sounds*. If they are celebrating creativity of any sort, it is not the sort important to generative grammar but the sort that is reflected in the great phonetic differences among the languages of the world. And if that passage is all that can be offered as evidence that the idea of the creative aspect of language use is present in the *Grammar*, the claim must be rejected.

The second of the four leading ideas is the distinction between the surface structure of a sentence and its deep structure. It is this idea that Chomsky finds most strikingly present in and distinctive of the *Grammar*. One aspect of it may even provide additional evidence for the presence of the first idea: "the theory of deep and surface structure as developed in the Port-Royal linguistic studies implicitly contains recursive devices and thus provides for infinite use of the finite means that it disposes, as any adequate theory of language must" (*CL* 41). But the theory's implicit inclusion of recursive devices certainly does not show what Lakoff

[6] A typographical error has obliterated the point of the passage as quoted in her review. Between the third and fourth lines of the quotation the following words have been omitted: "*invention merveilleuse de composer de* 25. *ou* 30. *sons cette*".

allows — that "the authors do seem to *have a concept* of the recursive properties of language" (*LR* 346, italics added). In any case Lakoff says she does "not find any evidence... that they relate this recursive property to creativity of language use" (ibid.); neither do I. After briefly surveying the third and fourth ideas in connection with the *Grammar* I will consider the deep/surface distinction more directly.

The third idea grows out of the distinction between description and explanation in linguistics. "Cartesian linguistics was not concerned simply with descriptive grammar,... but rather with 'grammaire générale', that is, with the universal principles of language structure" (*CL* 52). "The discovery of universal principles would provide a partial explanation for the facts of particular languages, in so far as these could be shown to be simply specific instances of the general features of language structure formulated in the 'grammaire générale'" (*CL* 54). The idea of universal principles of language structure is unquestionably present in the *Grammar*, but since it broadly characterizes a great deal of philosophical thought about language beginning long before the seventeenth century,[7] there is nothing specifically Port-Royalist or Cartesian in it. Universal principles are invoked as explanatory devices by the authors of the *Grammar* (particularly in Pt. II, Chs. 9 and 24), perhaps with the aim expressed in the second of the two sentences quoted just above, although I do not find them stating that aim.

The fourth and last of these leading ideas has to do with the acquisition and use of language. This has the most distinctively Cartesian look of the four ideas; its twentieth-century manifestation is the Chomskyan innateness principle. "The study of the universal conditions that prescribe the form of any human language is 'grammaire générale'. Such universal conditions are not learned; rather, they provide the organizing principles that make language

[7] Salmon's review provides the most specific evidence for this claim, but occasionally Chomsky seems to acknowledge it himself; see, *e.g. CL* 97 (n. 67) and 105 (n. 101). See also my Encyclopedia article "History of Semantics" and the medieval material excerpted near the end of this article.

learning possible, that must exist if data is to lead to knowledge. By attributing such principles to the mind, as an innate property, it becomes possible to account for the quite obvious fact that the speaker of a language knows a great deal that he has not learned" (*CL* 59-60). Whether or not this idea is genuinely Cartesian,[8] it is totally absent from the *Grammar*; nor does Chomsky claim to have found it there. It may, therefore, be left aside as irrelevant to our specific purposes here.

In *Cartesian Linguistics* the *Grammar* is discussed primarily in connection with the deep/surface distinction. Since that distinction is also fundamental to transformational grammar, it is especially important to see what the distinction is and how the *Grammar* is supposed to present it. "Using some recent terminology, we can distinguish the 'deep structure' of a sentence from its 'surface structure'. The former is the underlying abstract structure that determines its semantic interpretation; the latter, the superficial organization of units which determines the phonetic interpretation and which relates to the physical form of the actual utterance, to its perceived or intended form. In these terms, we can formulate a second fundamental conclusion of Cartesian linguistics [the first having to do with the creative aspect of language use], namely, that deep and surface structures need not be identical. The underlying organization of a sentence relevant to semantic interpretation is not necessarily revealed by the actual arrangement and phrasing of its given components. This point is brought out with particular clarity in the Port-Royal *Grammar*, in which a Cartesian approach to language is developed, for the first time, with considerable insight and subtlety" (*CL* 33).

In support of his contention that the Port-Royalists had the concepts of deep and surface structure and (to a lesser extent) of the transformations needed to get from the one to the other Chomsky cites one single example again and again in various writings (but especially in *CL* 33-34). We are entitled to infer that if it is not the only instance in the *Grammar*, it is at least what

[8] See David Cooper's "Innateness: Old and New" and Bracken's "Chomsky's Variations on a Theme by Descartes".

Chomsky sees as the only fully developed instance in which the distinction between deep and surface structures is "brought out with particular clarity". It occurs in the chapter on relative pronouns (Pt. II, Ch. 9) in a discussion of propositions with complex terms.

> But other times also, these kinds of propositions, in which the subject or the predicate is composed of several terms, contain, at least in our mind, several judgments, of which one can make as many propositions. Thus, for example, when I say, *invisible God created the visible world*, three judgments pass through my mind which are included in this proposition. For I judge:
> (1) that God is invisible;
> (2) that He created the world;
> (3) that the world is visible;
> and of these three propositions, the second is the principal and essential one of the original proposition. But the first and the third constituent propositions are only subordinate, and comprise only part of the principal proposition — the first composing the subject of the principal proposition, and the third composing its predicate.
>
> Now these subordinate propositions are often in our mind, without being expressed in words, as in the example cited. But sometimes they are also expressly designated, and it is to this end that the relative pronoun contributes, as when I reduce the above example to these terms: *God WHO is invisible created the world WHICH is visible.*

If we begin by supposing that this is the paradigm instance of the Port-Royalists' distinction between deep and surface structure, it is disconcerting to observe their treatment of other sentences in the paragraphs just preceding the quoted passage. For instance, the sort of "deep structure" analysis provided for 'Invisible God created the visible world' is not applied to 'The valor of Achilles was the cause of the capture of Troy', which is considered a "simple" proposition and hence not susceptible to such analysis.[9] R. H. Robins remarks, "It is hard to follow this reasoning, as in transformational terms this latter sentence would be treated very similarly to the other" (*A Short History of Linguistics*, 125). The

[9] As far as I know Chomsky never considers or even mentions the Achilles proposition and the Port-Royalists' treatment of it.

reasoning is indeed hard to follow if we persist in supposing that what we are confronting here is proto-transformationalism. The context of these examples in the *Grammar* is not entirely clear, but it strongly suggests a different interpretation, which I shall try to set out in the following three paragraphs.[10]

Every proposition has two terms: a subject (that of which something is affirmed) and an attribute (that which is affirmed of something). The terms may be simple or complex. Single-worded unequivocal terms are always simple, as in

(1) *God is good.*

Many-worded terms are sometimes complex, as in

(2) *An able magistrate is a man useful to the Republic.*

The fact that the terms in (2) consist of more than one word is a necessary but not a sufficient condition of their complexity. "A complex expression is an expression composed of two or more words *joined together to express one idea*".[11] 'An able magistrate' is a complex term because the attribute 'a man useful to the Republic' is affirmed not of any and every magistrate but of an *able* magistrate only, and not of any and every able person but of an able *magistrate* only.[12] Similarly, 'a man useful to the Republic' is a complex term because one is affirming of an able magistrate not only that he is a man but that he is a man *useful to the Republic*,

[10] In this exposition I am trying to emphasize the likelihood of an interpretation different from the one Chomsky offers. I am not primarily concerned with a detailed analysis of the text. (Cf. Donzé's book, especially 143-145.) When I extrapolate from the text of the *Grammar* I try to do so along lines laid down in the later Port-Royal *Logic*, in which the doctrine of simple, compound, and complex propositions is considerably more elaborate. In the third (1676) edition of the *Grammar* the authors themselves refer at this point to Pt. II, Chs. 3-6 of the *Logic*; my exposition draws on Pt. I, Ch. 8, as well.

[11] *Logic*, Pt. I, Ch. 8; Dickoff and James translation, 59; italics added.

[12] This interpretation requires reading "*n'est pas seulement*" as 'not merely (as in 'not merely... but rather') instead of as 'not only' (as in 'not only... but also'). The latter reading suggests that (2) contains at least the judgments 'A magistrate is a man useful to the Republic' and 'An able magistrate is a man' and perhaps also 'A magistrate is a man' and 'An able magistrate is useful to the Republic'.

and not only that he is useful to the Republic but that he is *a man* useful to the Republic.

Why does (2), which contains no relative clauses, appear as an example in a section devoted to a discussion of the role of relative clauses as parts of the terms of propositions? Because it does contain complex terms. "The relative pronoun does not appear in every complex expression. Still, for any complex expression we can form an equivalent expression in which the relative pronoun does appear".[13] If the terms of (2) are rewritten in the equivalent relative-pronoun construction, we obtain

(2′) *A magistrate who is able is a man who is useful to the Republic.*

As the characterization of the complex terms has shown, these inserted relative clauses are restrictive. This means that (2′) does *not* contain the judgments

(2′a) *A magistrate is able.*
(2′b) *A man is useful to the Republic.*[14]

Not all many-worded terms are complex in this technical sense. The several words making up each of the terms in

(3) *The valor of Achilles was the cause of the capture of Troy,*

for example, are "joined together to form one idea", but if we attempt to "form an equivalent expression in which the relative pronoun does appear" the result is grammatically deviant:

*(3′) *The valor which was of Achilles was the cause of the capture which was of Troy.*

[13] *Logic*, Pt. I, Ch. 8; Dickoff and James translation, 59. It seems that the Port-Royalists' technical sense of 'complex term' may be spelled out in this way: An unequivocal term is complex if and only if (A) it consists of more than one word, (B) it expresses only one idea, and (C) it may be rewritten in an equivalent relative-pronoun construction.

[14] "But when a 'who' or a 'which' introduces a restrictive clause, the idea expressed by the predicate of that subordinate clause is not properly affirmed of the idea expressed by the antecedent of the relative word", *Logic*, Pt. II, Ch. 6; Dickoff and James translation, 119.

(3), therefore, is not a complex proposition, which can be considered as having subordinate propositions (relative clauses) as parts of its terms, but a simple proposition, "containing within itself only one judgment or one affirmation. ... This is what always happens when, of the two substantives which enter into the subject or the predicate of the proposition, one is governed by the other" (Pt. II, Ch. 9).

It is this discussion that provides the context for the crucial example

(4) *Invisible God created the visible world.*

(4) is like (3) in that its many-worded terms are not complex in the technical sense; but whereas the terms in (3) violated the relative-clause condition, the terms in (4) violate the one-idea condition. For this reason (4) is unlike (3) in that it contains subordinate propositions (relative clauses) and unlike (2) in that its subordinate propositions can be reformulated as judgments contained within (implied by) the original. Thus the equivalent relative-pronoun construction in this case is grammatically all right:

(4′) *God who is invisible created the world which is visible.*

And since the many-worded terms of (4) violate the one-idea condition, these inserted relative clauses are non-restrictive (or "explicative", as the *Logic* puts it). This means that (4) *does* contain the judgments

(4′a) *God is invisible.*
(4′b) *The world is visible.*[15]

And these judgments or affirmations are "subordinate to the affirmation asserted by the whole sentence", *viz.*,

[15] "When a 'who' or a 'which' introduces an explicative clause, the predicate of that subordinate clause expresses an idea affirmed of the idea expressed by the antecedent of the relative word — even though this affirmation is only subordinate to the affirmation expressed by the whole sentence. Because the relative word introduces an explicative clause, we may substitute for the relative pronoun its antecedent without altering the sense of the subordinate clause". *Logic*, Pt. II, Ch. 6; Dickoff and James translation, 118-119.

(4'c) *God created the world.*

My account of the intended function of these examples is certainly not definitive, but I believe it does bring out one feature of them that must be taken into account in an interpretation of any one of them, and that is that they are presented as elements in a series of comparisons designed to bring out the technical notion of a complex term and the role played by relative clauses in the expression or analysis of such terms. I am not competent to say whether when viewed against this background the Port-Royalists' treatment of (4) continues to suggest that they had the concepts and something resembling the techniques of transformational grammar. The point I do feel competent to make is the one emphasized by Lakoff for similar reasons: "one must look long, hard, and imaginatively — rather too imaginatively — at the *GGR* [the *Grammar*] before one can make oneself, let alone anyone else, believe that this is the work of a proto-transformationalist" (*LR* 346).

Lakoff's own evaluation of the *Grammar* is worth examining: "although one can make claims for the existence in the *GGR* of all the modern concepts we have noted, I find these claims [of Chomsky's] dubious. But this does not mean that L[ancelot] and A[rnauld] were not, in some sense, generative grammarians. On the contrary, I would state definitely that they were — but not on the basis of the more or less mechanistic reasons that have been adduced [by Chomsky]: the existence in their work of transformational-type rules, or the concept of recursion. Rather, I am drawn to this view by another factor: their belief in an underlying universal logical level of language, related in some fashion to the particular, non-logical languages that we speak. This concept, however, depends on a deeper one: the intuitive belief found in the *GGR* that language in its underlying form need not be the same as it looks on the surface, or that the figurative construction may be far removed from the deeper, or simple, construction. That is, grammar is abstract" (*LR* 346).

I am surprised by the breadth of the considerations on which

Lakoff rests her definite statement that Lancelot and Arnauld were indeed generative grammarians. The two interrelated beliefs she cites clearly were beliefs of theirs, but are those beliefs enough to qualify one as a generative grammarian? If so, then as long as philosophers have been talking about language they have, in the manner of Molière's M. Jourdain, been speaking generative grammar without knowing it. I agree with Lakoff that Chomsky has not made a convincing case for viewing the *Grammar* as an early essay in generative grammar, but the evidence he considered was at least specifically grammatical and sufficiently detailed to permit comparison with current theory and practice. Lakoff's evidence is so broad that it raises serious questions about just what counts as generative grammar, deep and surface structures, and transformational rules.

Lakoff is a linguist, as I am not, and she knows far better than I do what constitutes and is distinctive of generative grammar. But if one takes her statements here as providing criteria for the recognition of generative grammarians in the history of thought about language, one turns up some unexpected and, I should think, unwanted candidates. For example, on Lakoff's grounds why should Aristotle's invention of formal logic not count as the obvious beginning of those transformationalist trends that are so hard to discern clearly in the *Grammar*? Aristotle was not out to provide an analysis of arguments (and hence of sentences) in Greek only. 'All A is B' presents the form of sentences in Persian or in English as well as in Greek just because there is "an underlying universal logical level of language". Presumably 'All A is B' does *not* qualify as the deep structure (or even as the prototype of the deep structure) of 'The whale is a mammal' or even of 'All joy is evanescent' but why not? What *is* the difference between logical form and grammatical form, particularly when the latter is interpreted as deep structure?

Courses in traditional logic used to stress the "standard form" of categorical propositions and to provide rules for getting from propositions in non-standard form — such as 'He jests at scars who never felt a wound' — to the standard form — 'All persons

who jest at scars are persons who never felt a wound'. Contemporary courses in logic do much the same sort of thing in teaching the formalization of sentences in natural languages. Thus 'Invisible God created the visible world' might be formalized as

$$(-Fa \ \& \ Fb) \ \& \ Gab$$

The subordinate propositions and the principal proposition of the Port-Royal analysis can be picked out in that formalization, which is of course likewise a formalization of '*Dieu invisible a creé le monde visible*'. Presumably one is not performing a grammatical transformation in moving from that formalization to one or another sentence in some natural language, and presumably the rules for making that move are not transformational rules; but why not?

Contemporary generative grammarians certainly ought to have standard answers to such questions, but whatever their answers may turn out to be, Lakoff's criteria provide no possible basis for drawing the relevant distinctions.

For quite different reasons neither Chomsky nor Lakoff has offered good evidence for considering the Port-Royal *Grammar* to be an early essay in transformationalism,[16] but the evidence they do offer raises many interesting questions about the interpretation of the *Grammar* (and the *Logic*) specifically, about the history of thought about language, and, more surprisingly, about the fundamental concepts of twentieth-century transformational grammar.

Before reading Chomsky and Lakoff on the Port-Royal *Grammar* a non-linguist is likely to suppose that he knows too little about transformational grammar to suggest interesting historical antecedents. But their observations on the *Grammar* have employed criteria so broad (and made so much of so little) that non-linguists

[16] Lakoff does offer much fuller and very interesting evidence in the latter portion of her review to support her claim that more interesting antecedents of transformationalism among the Port-Royalists are to be found within the grammars of particular languages written by Lancelot before he and Arnauld wrote the *Grammar*. I have made no attempt to assess that evidence.

may be emboldened to point out what seem to be far more promising fields for this same quest. Late medieval logic (that of the fourteenth and fifteenth centuries) strikes me as being just such a field, and perhaps the most promising of all.

Medieval logicians were engaged not nearly so much in formal logic as in what might fairly be described as philosophical grammar, and they were engaged in it with a high degree of continuity for at least four hundred years (1100-1500). It is only reasonable that one should look to their work for antecedents of transformationalism before (or at least as well as) examining works produced in a tradition that was self-consciously rejecting much that was or seemed typically medieval, especially the pedantic concern with linguistic detail that characterized late scholasticism. It has often been assumed, naturally enough, that if the linguistic work of the Port-Royalists had interesting medieval antecedents they would be found among the treatises of the speculative grammarians, the "modistae".[17] But because the orientation of the modistae is more towards theoretical connections between grammatical and ontological categories than towards the practice of analysis and argumentation, they are, I think, less likely than the logicians to provide material that parallels contemporary transformationalism closely enough to repay careful comparison.

Late medieval logic embraced an enormous array of topics, many or most of which would now be thought of as falling within philosophy of language or perhaps even linguistics. The part of it that seems to me to offer the most interesting material for present purposes is the theory and practice of the "exposition" of propositions.[18] Exposition was not the only sort of linguistic analysis

[17] On the speculative grammarians see Jan Pinborg's *Entwicklung* and G. L. Bursill-Hall's *Speculative Grammars*. Robert G. Godfrey, in his "Late Medieval Linguistic Metatheory", and Peter H. Salus, in his "PRE-Pre-Cartesian Linguistics", have suggested transformationalist antecedents among the speculative grammarians.

[18] Salmon mentions exposition in her review (181 and 182) and points out that the Port-Royalists knew of it. See E. J. Ashworth's "The Doctrine of Exponibilia". See especially Jan Pinborg's *Logik und Semantik im Mittelalter*, section 4.4 "Linguistik im Mittelalter", 102-126.

developed, nor were all propositions taken to be exponible.[19] (I am calling attention to only the tip of only one in a cluster of relevant icebergs.) An exponible proposition was sometimes called a pregnant proposition, not only because there is something in it destined to be brought out but also because in its pregnant state it is clumsy and has difficulty getting around and doing its work.[20] What impregnates such a proposition is an exponible word or phrase. These exponibilia were variously catalogued in the history of the doctrine, but a reasonably complete list for fifteenth-century logicians would have included all these: exceptives (e.g., 'except', 'but', 'besides', 'save'); exclusives (e.g., 'only', 'solely', 'alone'); universal signs (e.g., 'all', 'every', 'each', 'any', 'no'); modal adjectives and adverbs (e.g., 'necessary', 'possibly'); comparative and superlative forms of adjectives and adverbs; reduplicatives (e.g., 'insofar as', 'considered as', 'to the extent to which'); alietatives (e.g., 'different from', 'other than'); the verbs 'begin' and 'cease'; and various groups of interrelated words and phrases, such as 'infinite' and 'infinitely many'; 'whole', 'the whole of', and 'wholly'; 'always', 'ever', 'eternally', and 'from eternity';

[19] The development of this sort of linguistic analysis began with the recognition that some words or constructions ("mediate terms") mask grammatical or logical operations, such as changes in tense or negation. In order to bring propositions containing mediate terms into forms suitable for syllogistic reasoning or for verification, late medieval logicians developed detailed methods of analysis under three general heads, depending on whether the mediate terms were (A) resoluble, (B) exponible, or (C) functional. The method for dealing with (A) was aimed primarily at providing straightforwardly verifiable propositions (suggestive of twentieth-century "protocol sentences"); that 'A bishop can preach' was resolved into (1) 'This can preach' & (2) 'This is or can be a bishop'. The method for dealing with (B) shared the aim of resolution but was more obviously oriented towards unmasking logical operations; examples are provided later in this article. The mediate terms grouped under (C) were primarily the modal operators & the verbs of propositional attitude — words which affected some complete embedded proposition; thus 'You know that a man is running' was analyzed so as to avoid the problematic expression 'that a man is running' (*hominem currere*): "You know the proposition 'A man is running' (*homo currit*)".

[20] This image is developed by the anonymous author of "The Hagenau Treatise" on the second page of his (unpaginated) Article on exponibilia. See below.

'so', 'thus', 'just as', and 'as'. Whether there is any unifying feature in all these exponibilia and what it might be are important questions that cannot concern us here. I want only to present a small but representative sample of the sort of logico-linguistic analysis known as the exposition of propositions in order to invite comparison with the Port-Royal *Grammar* and with twentieth-century transformational grammar and, I hope, to stimulate interest in a rich and almost totally neglected area of research in the history of thought about language.

All the material I am going to present here on exponibilia is drawn from an anonymous treatise printed at Hagenau in 1495.[21] The author devotes the last sixty-seven pages of his (unpaginated) treatise to the exponibilia, beginning (in the usual manner) with the exceptives.

The Latin words he picks out as typical of all exceptives are '*praeter*' (but), '*praeterquam*' (apart from the fact that), and '*nisi*' (unless). The first occurs either as an adverb or as a preposition governing the accusative case; the latter two are conjunctions. Immediately after listing his paradigms the author points out that "while they differ from one another in their effect on the form of other words in a sentence (*quoad modum construendi*), they do not differ as regards exception" (2nd page of material on exponibilia). No doubt he intends to say that as a logician he classifies words without feeling bound by the traditional categories employed by the grammarian, but he goes on, in several examples, to show how the grammarian's distinctions among those exceptives reflect only differences in the inflected forms of other words in the sentences in which they occur and not differences in the character of the exception they effect. Interpreting this under either Chomsky's or Lakoff's criteria, we are entitled to see it as the author's

[21] The photographically reproduced reprinting of 1967 mistakenly ascribes the treatise to Marsilius of Inghen (d. 1396). Marsilius is actually one of the authors on whose work the treatise comments, as is shown by the full, correct title: *Commentum emendatum et correctum in primum et quartum tractatus Petri Hispani, et super tractatibus Marsilii de suppositionibus, ampliationibus, appellationibus, et consequentiis.*

recognition that "deep and surface structures need not be identical".

Perhaps there is further evidence of such a recognition in a remark the author makes after considering a rule to the effect that when exceptives occur in such a way as to produce genuinely exceptive propositions they must follow universally quantified terms — as in 'Every man but Socrates is running'. "On that basis," he says, "there is something improper (*inepta*) about the proposition 'A man but Socrates is running'. But its impropriety has nothing to do with a failure of its parts to satisfy [the grammarians'] conditions of agreement; rather it is improper under a criterion of logical propriety" (3rd page).[22]

My belief that this author's treatment of exponibilia is relevant to the topics under discussion in this article is founded not on such stray remarks but on the overall impression made by the analysis he actually carries out on exponible propositions and by the rules he provides for such analysis. After examining the principles and methods of analysis employed by other logicians, he presents his own.[23]

In accordance with our own method, however, exponible propositions are expounded by means of three exponents. In the first of the exponents the 'but' (*praeter*) or other exceptive sign is transformed (*mutatur*) into 'which is not' or 'who is not', depending on conditions of agreement [of gender], and the excepted[24] word is transformed into the nominative if it is in an oblique case, and nothing else that is in the expounded proposition is transformed. The second exponent is one in which the principal subject is predicated of the term that has been set aside. And

[22] "*Et sic ista est inepta: 'Homo praeter Socratem currit'. Non tamen sic inepta quod esset incongrua; sed est inepta aptitudine logicali.*"

[23] Some basic terminology is presupposed in these passages. 'Every man but Socrates is running' is an exceptive proposition. Relative to the operation of exposition it is called the expounded proposition; the component propositions brought out in the exposition are called its exponents. In the proposition 'Every' is the universal sign, 'man' is the principal subject as well as the excepted term, 'but' is the exceptive sign, 'Socrates' is the term that has been set aside, 'is' is the copula, and 'running' is the principal predicate.

[24] Reading '*excepta*' for '*exceptiva*'.

the third exponent is one in which the principal predicate is predicated of the term that has been set aside.[25]

Definite rules are established regarding the quality [i.e. affirmative or negative] and the quantity [i.e. universal or particular] of the exponents.

Rule I. When the exceptive sign is affirmed, the exceptive proposition must be expounded copulatively [i.e. the exponents must be connected together by means of 'and'] whether the proposition itself is affirmative or negative. But[26] if the exceptive sign is negated, the proposition must be expounded disjunctively [i.e. the exponents must be connected together by means of 'or'], just as in the case of every pregnant proposition in which the impregnating sign is a syncategorematic word.[27]

Rule II. The first exponent must be of the same quality and quantity as the expounded proposition, and nothing is transformed except that the exceptive sign is transformed into 'which is not' (or some form thereof — such as 'which was not' or 'which will not be' — depending on what is called for by the [original] copula), and that the excepted term is transformed into the nominative if it is in an oblique case.

Rule III. If the term that has been set aside is distributed [i.e. universally quantified], the second exponent must be universal; and if no negation (or two exactly equal negations) is carried over the exceptive sign, the second exponent must be affirmative; and if one negation (or two not exactly equal negations) is carried over the sign, the second exponent must be negative.

Rule IV. The third exponent must always be opposite in quality to the expounded proposition (or to the first exponent) and of the same quantity as the second exponent.

Example. 'Every animal but man is irrational' is expounded as follows: (1) Every animal which is not a man is irrational, and (2) Every man is an animal, and (3) Every man is not irrational [i.e. No man is irrational].

[A rule regarding tenses.] The terms must be taken in the exponents in accordance with the same tense-differences as they had in the expounded proposition.

This method is universally accurate for all exceptive propositions, whether affirmative or negative. But it does not apply to insolubilia[28]

25 For an example of this sort of exposition see just after Rule IV below.

26 Reading '*vero*' for '*vera*'.

27 I.e. a word that cannot occur alone as a subject or predicate term. 'Signum praegnans', the phrase I translate as 'impregnating sign', is literally 'pregnant sign'. But it is the proposition that is pregnant, and it is the sign that got it that way.

28 Reading '*insolubilibus*' for '*solubilibus*'.

[i.e. self-referential propositions], since insolubilia [such as 'Every proposition but an exceptive is true'] require more than three exponents. ...And the fourth exponent must be 'and (4) This exceptive is true'. (5th page)

I have presented this extended excerpt (still quite brief in proportion to the sixty-seven pages the author devotes to exponibilia) in order to provide something like a fair basis for an initial comparison of the principles and methods of the exposition of propositions with those employed in the Port-Royal *Grammar* and in contemporary transformational grammar. I think that the excerpt — typical of an enormous amount of material in this treatise and uncounted others on exponibilia — suggests, at least as strongly as anything in the *Grammar*, that its author has concepts closely resembling those of deep and surface structures and of transformational rules.

One last excerpt may help to reinforce this suggestion, especially as regards the concepts of deep and surface structures. In this passage the author is beginning his detailed discussion of the problematic example — the "sophisma" — 'Every animal but man is irrational'.[29]

In connection with the sophisma notice that if we maintain [as some writers do] that exponible propositions are hypothetical [i.e. made up of more than one simple categorical proposition connected together by some conjunction (not just 'if ... then ...')], then this proposition contains its principal, material parts not explicitly but implicitly, in which case it is a copulative affirmative proposition [i.e. an affirmative proposition made up of at least two independent propositions connected by 'and']. If, on the other hand, we maintain, as is commonly done, that exponible propositions are categorical, then the sophisma is a universal affirmative proposition. (7th page)

Whatever these excepts may suggest regarding proto-transformationalism in the fifteenth century, I hope that they will stimulate

[29] The sophisma is problematic for several reasons, among which is the fact that although it has the (surface) structure of a universal affirmative categorical proposition, attempts to employ it as the major premiss of a syllogism seem to require uninterpretable minor premisses, such as 'This donkey is an animal but man' or 'Some animal but man is not four-legged'.

research on the exponibilia and other neglected aspects of medieval linguistic analysis. I have presented them on this occasion because to do so seemed the most effective way of challenging the contentions that there is something particularly novel, particularly well developed, or particularly Cartesian about the analysis of sentences presented in the Port Royal *Grammar*. I trust that by raising the challenge I have at least encouraged the reader to look more closely at the *Grammar* and at the literature that has recently grown up around it.[30]

[30] I am grateful to Sally Ginet, Barbara Kretzmann, and Robert Stalnaker for their comments on an earlier draft of this article.

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